# INDUSTRIAL ACTIVITIES STORMWATER POLLUTION PREVENTION PLAN

for

El Estero Wastewater Treatment Plant

## **Facility Address:**

520 East Yanonali Street Santa Barbara, CA 93101

## **Waste Discharge Identification (WDID):**

[TBD]

## **Exceedance Response Action (ERA) Status:**

Baseline

## **Legally Responsible Person [LRP):**

City of Santa Barbara El Estero Wastewater Treatment Plant 520 E. Yanonali Street, Santa Barbara, CA 93101 Todd Heldoorn, Wastewater Treatment Superintendent 805-568-1003

## **SWPPP Prepared by:**

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## **SWPPP Preparation Date**

May 29, 2015

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## Acronym List

APN Assessor's Parcel Number
AST Aboveground Storage Tank
BMP Best Management Practice

CASQA California Stormwater Quality Association

CoC Chain of Custody

COD Chemical Oxygen Demand

EEWTP El Estero Wastewater Treatment Plant

ELAP Environmental Laboratory Accreditation Program

ELG Effluent Limitation Guideline

EPA Environmental Protection Agency

ERA Exceedance Response Action

FIRM Flood Insurance Rate Maps

FOG Fats, Oil, and Grease

LRP Legally Responsible Person

MDL Method Detection Limit
MGD Million Gallons per Day

MIP Monitoring Implementation Plan

MS4 Municipal Separate Storm Sewer System

N Nitrogen

NOAA National Oceanic and Atmospheric Administration

NOI Notice of Intent

NOT Notice of Termination

NPDES National Pollutant Discharge Elimination System

NRCS Natural Resources Conservation Service

NSWD Non Stormwater Discharge

PE Polyethylene

PRD Permit Registration Document

QA/QC Quality Assurance / Quality Control

QCS Qualified Combined Samples

QISP Qualified Industrial Stormwater Practitioner

QSE Qualified Storm Event

RSR Representative Sample Reduction

SCE Southern California Edison

SMARTS Stormwater Multi Application and Report Tracking System

SWPPP Stormwater Pollution Prevention Plan

TMDL Total Maximum Daily Load

USDA United States Department of Agriculture

WDID Waste Discharge Identification

## Legally Responsible Person

| Approval and Certification of the S  | tormwater Pollution Pre  | evention Plan   |
|--|--|---|
| Facility Name:   | El Estero Was  | tewater Treatment Plant   |
| Waste Discharge Identification (WDID):   |  | TBD   |
| direction or supervision in accordar<br>properly gather and evaluate the inf<br>who manage the system or those pe<br>of my knowledge and belief, the inf | nce with a system design<br>formation submitted. Batersons directly responsible<br>formation submitted is, or submitting false information | ttachments were prepared under my<br>ned to assure that qualified personnel<br>sed on my inquiry of the person or persons<br>ble for gathering the information, to the bestrue, accurate, and complete. I am aware<br>mation, including the possibility of fine |
| Todd Heldo Legally Responsib   |  |   |
| Signature of Legally Responsib<br>Signatory  |  | Date  |
| Name of Legally Responsible<br>Signatory [Not applicab   | * *  | Telephone Number  |

## Amendment Log

| Facility Name:                         | El Estero Wastewater Treatment Plant |
|--|--------------------------------------|
| Waste Discharge Identification (WDID): | TBD                                  |

| Date | Page and<br>Section<br>No. | Requested<br>By | Brief Description of Amendment; include reason for change, site location, and BMP modifications. | Prepared<br>and<br>Approved<br>By                           |
|------|----------------------------|-----------------|--|---|
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|      | Date                       | Section         | Section Requested  | Section Requested include reason for change, site location, |

#### 1.1 INTRODUCTION

The El Estero Wastewater Treatment Plant (EEWTP) site comprises approximately 13.5 acres and is located at 520 East Yanonali Street in the City of Santa Barbara, California. The property is owned and operated by the City of Santa Barbara. The facility location is shown on the Site Maps in Appendix A.

This Stormwater Pollution Prevention Plan (SWPPP) is designed to comply with California's General Permit for Stormwater Discharges Associated with Industrial Activities (General Permit) Order No. 2014-0057-DWQ (NPDES No. CAS000001) issued by the State Water Resources Control Board (State Water Board). This SWPPP has been prepared following the SWPPP Template provided on the California Stormwater Quality Association Stormwater *Best Management Practice Handbook Portal: Industrial and Commercial* (CASQA 2014). In accordance with the General Permit, Section X.A, this SWPPP contains the following required elements:

- Facility Name and Contact Information;
- Site Map;
- List of Significant Industrial Materials;
- Description of Potential Pollution Sources;
- Assessment of Potential Pollutant Sources;
- Minimum BMPs;
- Advanced BMPs, if applicable;
- Monitoring Implementation Plan (MIP);
- Annual Comprehensive Facility Compliance Evaluation (Annual Evaluation); and,
- Date that SWPPP was Initially Prepared and the Date of Each SWPPP Amendment, if Applicable.

#### 1.2 PERMIT REGISTRATION DOCUMENTS

Required Permit Registration Documents (PRDs) were submitted to the State Water Board via the Stormwater Multi Application and Report Tracking System (SMARTS) by the Legally Responsible Person (LRP), or authorized personnel (i.e., Approved Signatory) under the direction of the LRP. The project-specific PRDs include:

- 1. Notice of Intent (NOI);
- 2. Signed Certification Statement (LRP Certification is provided electronically with SMARTS PRD submittal);
- 3. Site Maps;

- 4. SWPPP; and
- 5. Annual Fee.
- The Site Maps can be found in Appendix A. A copy of the submitted PRDs are also kept in Appendix B of the SWPPP along with the Waste Discharge Identification (WDID) confirmation.
- The SWPPP uploaded into SMARTS should not include a copy of the General Permit.
- In the event of future significant changes to the facility layout, the Discharger will certify and submit new PRDs via SMARTS.

#### 1.3 SWPPP AVAILABILITY AND IMPLEMENTATION

The SWPPP is available on-site to all employees during all hours of operation (see Section 2.5 for the Operations Schedule), and will be made available upon request by a State or Municipal inspector. The SWPPP will be implemented by July 1, 2015.

#### 1.4 POLLUTION PREVENTION TEAM

Facility staff that have been designated as Pollution Prevention Team members are listed below in Table 1.1, along with their responsibilities and duties. Because staff are constantly changing, staff titles have been provided in lieu of specific names. This table will be updated as needed when there are changes to staff responsibilities. All team members will be trained to perform the duties assigned to them. Employee training logs are provided in Appendix C.

Table 1.1 Pollution Prevention Team

| Title  | Responsibilities and Duties  |  |  |  |
|--|--|--|--|--|
| Wastewater System Manager                    | Understand SWPPP requirements  |  |  |  |
| Wastewater Treatment Plant<br>Superintendent | <ul> <li>Understand SWPPP requirements</li> <li>Implement SWPPP management procedures</li> <li>Serve as LRP</li> <li>Obtain coverage under General Permit</li> </ul>                                   |  |  |  |
| Wastewater Treatment Plant<br>Supervisor     | <ul> <li>Understand SWPPP requirements</li> <li>Provide training to Pollution Prevention Team</li> <li>Maintain training records</li> <li>Maintain records of spills and clean-up responses</li> </ul> |  |  |  |
| Wastewater Treatment Plant<br>Operators      | <ul> <li>Implement Minimum BMPs</li> <li>Perform routine BMP inspections and maintenance</li> <li>Track and record BMP implementation</li> </ul>   |  |  |  |
| Wastewater Laboratory<br>Supervisor          | Coordinate with sampling team for laboratory analysis of stormwater  |  |  |  |

Table 1.1 Pollution Prevention Team

| Title  | Responsibilities and Duties  |
|--|--|
| Wastewater Laboratory<br>Analyst Coordinator | Coordinate staffing for laboratory analysis of<br>stormwater   |
| Principal Engineer                           | <ul> <li>Understand SWPPP requirements</li> <li>Implement SWPPP management procedures</li> </ul>   |
| Supervising Engineer                         | Understand SWPPP requirements  |
| Project Engineer                             | <ul> <li>Perform visual monitoring</li> <li>Collect stormwater samples</li> <li>Revise SWPPP as needed</li> <li>Manage submittals to SMARTS</li> <li>Provide training to Pollution Prevention Team</li> <li>Maintain forms and checklists</li> </ul> |

#### 1.6 PERMITS AND GOVERNING DOCUMENTS

In addition to the General Permit, the following documents have been taken into account while preparing this SWPPP:

- Regional Water Board Basin Plan;
- City of Santa Barbara Stormwater Management Plan;
- City of Santa Barbara Stormwater BMP Guidance Manual; and
- Hazardous Materials Business Plan.

#### 1.7 SWPPP AMENDMENTS

This SWPPP will be amended or revised as needed. A list of amendments (Amendment Log) is included in the front of this SWPPP (page 7), and amendment certifications are included in Appendix E. The Amendment Log will include the date of initial preparation and the date of each amendment. The SWPPP should be revised when:

- There is a General Permit violation;
- There is a reduction or increase in the total industrial area exposed to stormwater;
- BMPs do not meet the objectives of reducing or eliminating pollutants in stormwater discharges;
- There is a change in industrial operations which may affect the discharge of pollutants to surface waters, groundwater(s), or a municipal separate storm sewer system (MS4);
- There is a change to the parties responsible for implementing the SWPPP; or

• Otherwise deemed necessary by the Qualified Industrial Stormwater Practitioner (QISP).

The following items will be included in each amendment:

- Who requested the amendment;
- The location of proposed change;
- The reason for change;
- The original BMP(s) proposed, if any; and
- The new BMP(s) proposed.

Amendments will be logged at the front of the SWPPP and certification kept in Appendix E. The SWPPP text will be revised, replaced, and/or hand annotated as necessary to properly convey the amendment. SWPPP amendments must be certified and submitted by the LRP or their designated Duly Authorized Representative via SMARTS within 30 days whenever the SWPPP contains significant revisions. With the exception of significant revisions, SWPPP changes will be certified and uploaded to SMARTS once every three (3) months in the reporting year.

#### 1.8 RETENTION OF RECORDS

Paper or electronic records of documents required by this SWPPP will be retained for a minimum of five (5) years from the date submitted for the following items:

- Employee Training Records;
- BMP Implementation Records;
- Spill and Clean-up Related Records;
- Records of Sampling and Analysis Information
  - o The date, exact location, and time of sampling or measurement;
  - o The date(s) analyses were performed;
  - The individual(s) that performed the analyses;
  - o The analytical techniques or methods used; and
  - o The results of such analyses;
- Records of Visual Observations
  - The date
  - The industrial areas/drainage areas of the facility observed during the inspection (Location);

- o The approximate time of the observation;
- o Presence and probable source of observed pollutants; and
- Name of the individual(s) that conducted the observations;
- Response to the observations including identification of SWPPP revisions if needed:
- Level 1 ERA Reports;
- Level 2 ERA Action Plan;
- Level 2 ERA Technical Report; and
- Annual Reports from SMARTS (checklist and any explanations).

Copies of these records will be available for review by the Water Board's staff at the facility during scheduled facility operating hours. Upon written request by U.S. EPA or the local MS4, Dischargers will provide paper or electronic copies of requested records to the Water Boards, U.S. EPA, or local MS4 within ten (10) working days from receipt of the request.

#### 1.9 EXCEEDANCE RESPONSE ACTIONS (ERAs)

If a General Permit Numeric Action Level (NAL) exceedance occurs in a given reporting year, a Level 1 ERA Evaluation and a Level 1 ERA Report will be required in the following year, or, if in a subsequent year, a Level 2 ERA Action Plan and a Level 2 ERA Report will be required in accordance with the General Permit. The results of either of the ERA reports may require that the SWPPP be amended.

There are two types of NAL exceedances specified in the General Permit: annual and instantaneous. An annual NAL exceedance occurs when the average of all the analytical results for a parameter from samples taken within a reporting year exceeds the annual NAL value for that parameter listed in General Permit Table 2. An instantaneous maximum NAL exceedance occurs when two (2) or more analytical results from samples taken for any single parameter within a reporting year exceed the instantaneous maximum NAL value (for TSS and O&G) or are outside of the instantaneous maximum NAL range for pH.

#### 1.10 ANNUAL COMPREHENSIVE FACILITY COMPLIANCE EVALUATION

The General Permit (Section XV) requires the Discharger to conduct one Annual Comprehensive Facility Compliance Evaluation (Annual Evaluation) for each reporting year (July 1 to June 30). Annual Evaluations will be conducted at least eight (8) months and not more than sixteen (16) months after the previous Annual Evaluation. The planned window for conducting the Annual Evaluation is between April and June of each year. The SWPPP will be revised, as appropriate based on the results of the Annual Evaluation, and the revisions will be implemented within 90 days of the Annual Evaluation.

At a minimum, Annual Evaluations will consist of:

• A review of all sampling, visual observation, and inspection and monitoring records and sampling and analysis results conducted during the previous reporting year;

- A visual inspection of all areas of industrial activity and associated potential pollutant sources for evidence of, or the potential for, pollutants entering the stormwater conveyance system;
- A visual inspection of all drainage areas previously identified as having no exposure to industrial activities and materials in accordance with the definitions in the General Permit (Section XVII);
- A visual inspection of equipment needed to implement the BMPs;
- A visual inspection of any BMPs;
- A review and effectiveness assessment of all BMPs for each area of industrial activity
  and associated potential pollutant sources to determine if the BMPs are properly
  designed, implemented, and are effective in reducing and preventing pollutants in
  industrial stormwater discharges and authorized Non-Stormwater Discharges (NSWDs);
  and
- An assessment of any other factors needed to comply with the Annual Reporting requirements described in Section 1.11 below.

#### 1.11 ANNUAL REPORT

The Annual Report will be prepared, certified, and electronically submitted no later than July 15<sup>th</sup> following each reporting year (July 1 to June 30) using the standardized format and checklists in SMARTS based on the reporting requirements identified in Section XVI of the General Permit. Annual reports will be submitted in SMARTS and in accordance with information required by the on-line forms. The Annual Report will include the following:

- 1. A Compliance Checklist that indicates whether EEWTP complies with, and has addressed all applicable requirements of the General Permit;
- 2. An explanation for any non-compliance of requirements within the reporting year, as indicated in the Compliance Checklist;
- 3. An identification, including page numbers and/or sections, of all revisions made to the SWPPP within the reporting year; and
- 4. The date(s) of the Annual Evaluation.

#### 1.12 TERMINATION AND CHANGES TO GENERAL PERMIT COVERAGE

When any of the following conditions occur, termination of coverage under the General Permit will be requested by certifying and submitting a Notice of Termination (NOT) via SMARTS:

- Operation of the facility has been transferred to another entity;
- The facility has ceased operations, completed closure activities, and removed all industrial related pollutant generating sources;
- The facility's operations have changed and are no longer subject to the General Permit.

The SWPPP and all of the provisions of the General Permit will be complied with until a valid NOT is received and accepted by the Board.

| If ownership changes, the existing EEWTP owner will notify the new owner of the General Permit and regulatory requirements for permit coverage. |  |  |  |  |
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#### 2.1 FACILITY DESCRIPTION

### 2.1.1 Facility Location

The EEWTP facility comprises approximately 13.5 acres and is located at 520 East Yanonali Street in Santa Barbara, California. The EEWTP is sited within Assessor's Parcel Numbers (APN) 017-113-016 and 017-540-005. The facility is located just south of Highway 1 in between Garden Street and Calle Cesar Chavez. The EEWTP is approximately 1,000 feet away from the Pacific Ocean, and is located at 34.417° N, 119.685° W. The location of the EEWTP facility is identified on the Site Maps in Appendix A.

The project discharges stormwater to the Laguna Channel which does not have adopted TMDLs and is not listed for water quality impairment on the most recent 303(d)-list. The Laguna Channel discharges to the Pacific Ocean approximately 1,000 feet downstream of EEWTP. The facility is not regulated under the California Ocean Plan since it discharges stormwater to an inland water body.

## 2.1.2 Facility Operations

Operations at the EEWTP facility consist of all activities required to treat approximately 11 Million Gallons per Day (MGD) of municipal wastewater. A list of specific industrial processes is provided below:

- Preliminary Treatment:
  - Headworks screening
  - o Influent pump station
  - o Grit removal
- Primary Treatment:
  - o Primary Clarifiers
- Secondary Treatment:
  - Aeration basins
  - Secondary clarifiers
  - Effluent disinfection and dechlorination
  - o Effluent discharge
- Tertiary Treatment:
  - o Tertiary filtration
  - o Recycled water distribution
- Solids Handling:
  - o Gravity Thickener
  - o Dissolved Air Flotation
  - o Fats, Oil, and Grease (FOG) receiving facility
  - o Anaerobic digesters
  - o Biosolids handling
- Energy Recovery
  - o Cogeneration

## 2.1.3 Existing Conditions

The majority of the EEWTP site is developed and has a variety of buildings, process equipment, landscape, hardscape, and some undeveloped areas. The site also includes a portion of the Laguna Channel, which bounds the site to the west. The Laguna Channel discharges to the Pacific Ocean through the use of a tide gate and pump system.

Approximately 49 percent (6.7 acres) of the study area is currently connected to the influent line upstream of the Headworks Facility, or otherwise directly connected into the treatment process train and therefore precipitation and stormwater runoff in these areas is fully contained. This includes drainage areas associated with the primary and secondary treatment works, portions of the solids handling facilities, the chlorine contact basin, and portions of the recycled water system.

The remaining 51 percent (6.8 acres) of the site is exposed to precipitation and stormwater runoff and discharges directly to the Laguna Channel or other offsite drainage. The exposed area consists of undeveloped areas, landscaped areas, paved parking lots, paved access roads, the administration building, the maintenance building, and portions of the solids handling and recycled water systems. There are also two small areas of erodible surface. The total area of erodible surface is approximately 0.5 acres and is isolated to small drainage areas in the northwest and southeast corners of the site.

The undeveloped areas are vegetated and are located around the perimeter of the site where industrial activities do not occur. Besides the 0.5 acres specified above, there are no erodible surfaces exposed to industrial activity, and there are no known historic sources of contamination onsite. The site layout and drainage areas are shown on the Site Maps in Appendix A. Existing BMPs at this facility are described in Section 3.

## 2.1.4 Description of Drainage Areas and Existing Drainage

The topography of the site is relatively level with elevations ranging between approximately 5 and 18 feet above sea level. EEWTP sits on a slight knoll, with stormwater draining to the edges of the site on all sides. The facility is divided into 36 drainage areas as described in Table 2.1 below and shown on the Site Maps in Appendix A. Of the 36 drainage areas, 17 are uncontained and exposed to differing levels of industrial activity. Two drainage areas are considered partially contained and discharge to the head of the plant for treatment. However, during extreme events, stormwater runoff from the partially contained drainage areas may exceed the capacity of the stormwater collection system and discharge directly to Laguna Channel. The other 17 drainage areas are completely contained, and stormwater runoff is collected and routed to the head of the plant for treatment. The Site Maps show the area layout, including the general site topography, storm drainage system, drainage inlets, drainage areas, and discharge locations.

There are several existing storm drainage facilities at EEWTP. These include catch basins, below grade storm drain lines, drainage gaps in curb lines, swales, and curbs and gutters as shown on the Site Maps in Appendix A. The primary storm drain piping network conveys stormwater to the Laguna Channel. This network collects stormwater from catch basins on the east and west sides of the primary and secondary treatment structure, the roof of the administration building, and from a 36-inch diameter concrete pipe and drainage channel on the east side of the plant.

The existing catch basins on the east and west sides of the primary and secondary treatment structure (Drainage Areas L and M) each have two outlets with slide gates. Opening one slide gate and closing the other will direct stormwater flow to the headworks. Opening and closing the other gates will direct stormwater to the storm drain system and eventually to the Laguna Channel. The plant currently operates these two catch basins such that 100 percent of the flow is directed to the headworks of the plant, and not to the Laguna Channel.

In 2015, two additional catch basins on the west side of the EEWTP (Drainage Areas 4 and 7) were modified to collect stormwater and discharge the majority of flows to the headworks of the plant for treatment. These two catch basins are designed with overflow bypass, and during extreme events (events larger than the 25-year, 24-hour design storm), stormwater runoff that exceeds the capacity of the collection system is discharged directly to the Laguna Channel. On an annual basis, the probability that stormwater runoff is discharged to Laguna Channel from these areas is approximately 4 percent.

There are several other isolated improvements to control the flow of stormwater onsite including:

- A single drain inlet on the north side of the main treatment structure collects stormwater and discharges to the City's storm drain network on East Yanonali Street.
- A large concrete channel near the Quinientos Street EEWTP entrance collects and conveys stormwater to the 36-inch diameter concrete storm drain in the primary storm drain piping network and flows to Laguna Channel. This concrete channel also receives stormwater from neighboring properties/parcels.
- A series of curbs, gutters, channels and swales direct flow from the tertiary chlorine contact basin area to Quinientos Street which makes its way into the concrete channel and ultimately to Laguna Channel.
- Several other inlets and catch basins collect stormwater which is conveyed to the headworks of the Plant.

Table 2.1 EEWTP Drainage Area Summary

| Table 2.1 EEW  | TP Draina | T .                                   | 1     |            |
|----------------|-----------|---------------------------------------|-------|------------|
| Description    | ID        | Area (ft²)                            | Area  | Percent of |
| Description    | 1         | 26,325                                | (Ac)  | Total Area |
|                |           | · · · · · · · · · · · · · · · · · · · | 0.6   | 4.4%       |
|                | 2         | 15,257                                | 0.35  | 2.6%       |
|                | 5         | 32,228                                | 0.74  | 5.5%       |
|                |           | 11,814                                | 0.27  | 2.0%       |
|                | 6         | 59,703                                | 1.37  | 10.1%      |
|                | 8         | 22,463                                | 0.52  | 3.8%       |
|                | 9         | 34,029                                | 0.78  | 5.8%       |
|                | 10        | 9,966                                 | 0.23  | 1.7%       |
| Uncontained    | 11        | 6,559                                 | 0.15  | 1.1%       |
| Drainage Areas | 12        | 5,367                                 | 0.12  | 0.9%       |
|                | 13        | 6,192                                 | 0.14  | 1.0%       |
|                | 14        | 5,980                                 | 0.14  | 1.0%       |
|                | 15        | 7,755                                 | 0.18  | 1.3%       |
|                | 16        | 6,630                                 | 0.15  | 1.1%       |
|                | 17        | 11,773                                | 0.27  | 2.0%       |
|                | 18        | 17,561                                | 0.4   | 2.9%       |
|                | 19        | 20,457                                | 0.4   | 3.5%       |
|                | Subtotal  | 300,059                               | 6.81  | 51%        |
| Partially      | 4         | 36,496                                | 0.84  | 6.2%       |
| Contained      | 7         | 29,969                                | 0.69  | 5.1%       |
| Drainage Areas | Subtotal  | 66,465                                | 1.53  | 11%        |
|                | A         | 96,597                                | 2.22  | 16.4%      |
|                | В         | 1,713                                 | 0.04  | 0.3%       |
|                | C         | 929                                   | 0.02  | 0.1%       |
|                | D         | 1,152                                 | 0.03  | 0.2%       |
|                | Е         | 7,758                                 | 0.18  | 1.3%       |
|                | F         | 3,680                                 | 0.08  | 0.6%       |
|                | G         | 1,524                                 | 0.03  | 0.2%       |
|                | Н         | 436                                   | 0.01  | 0.1%       |
| Contained      | I         | 123                                   | 0.002 | 0.0%       |
| Drainage Areas | J         | 1,474                                 | 0.03  | 0.2%       |
|                | K         | 2,429                                 | 0.06  | 0.4%       |
|                | L         | 10,596                                | 0.24  | 1.8%       |
|                | M         | 9,713                                 | 0.22  | 1.6%       |
|                | N         | 3,333                                 | 0.08  | 0.6%       |
|                | О         | 4,696                                 | 0.11  | 0.8%       |
|                | P         | 55,833                                | 1.28  | 9.4%       |
|                | Q         | 22,520                                | 0.52  | 3.8%       |
|                | Subtotal  | 224,506                               | 5.15  | 38%        |

Detailed descriptions of the 19 uncontained and partially contained drainage areas are provided below.

#### **Drainage Area 1**

Drainage Area 1 includes the area bordering the northeast edge of the plant from the main plant entrance to the administration building parking lot. This area includes paved roadways, landscaped areas, and Electrical Substation A. Stormwater runoff in this drainage area discharges off site on the roadway through the main plant entrance.

#### Drainage Area 2

Drainage Area 2 includes the area to the north of the plant between the front of the plant treatment structure and the retaining wall and fence adjacent to the roadway. This area includes paved areas, landscaped areas, and an electrical substation. The electrical substation has secondary containment to contain any spilled dielectric fluid. For the purpose of this study, it is assumed stormwater will not be impacted by the containment in the electrical substation area. Stormwater in this area flows into a catch basin on the north side of the roadway, on the north side of the fence bordering the plant. This catch basin is connected to the City storm drain system on Yanonali Street.

#### **Drainage Area 3**

Drainage Area 3 includes areas on the north and west sides of the plant, the majority of which are outside of the main plant fence. This area includes landscaped areas, hardscaped areas, and unmaintained areas. Stormwater runoff in this drainage area discharges off-site by sheet flow into Yanonali Street or directly into Laguna Channel. No industrial activities occur within Drainage Area 3.

#### **Drainage Area 4 (Partially Contained)**

Drainage Area 4 includes approximately 50 percent of the roof area of the influent pump station, the parking lot and landscaping on the north side of the administration building, the area between the administration building and the west side of the plant, and Electrical Substation B. This area includes paved areas, landscaped areas, roof area, and undeveloped areas adjacent to Laguna Channel. Stormwater runoff in this area discharges into a catch basin on the west side of the site and is directed to the head of the plant for treatment. The catch basin is designed with an overflow bypass, and excess stormwater flows are discharged directly into Laguna Channel during extreme events.

#### **Drainage Area 5**

Drainage Area 5 includes the roof of the administration building. Stormwater runoff in this area discharges into the primary storm drain system through a dedicated storm drain line.

#### **Drainage Area 6**

Drainage Area 6 includes the area on the east side of the plant, a large portion of the center of the plant, the two portable buildings adjacent to the administration building, approximately 33 percent of the digested sludge holding tank, and approximately 75 percent of the maintenance building. This area includes roof area, landscaped area, and paved areas. Stormwater runoff from this area discharges through a gap in the concrete wall on the east side of the plant into a

concrete drainage channel. The drainage channel flows into a 36-inch diameter concrete storm drain, and eventually into Laguna Channel.

#### **Drainage Area 7 (Partially Contained)**

Drainage Area 7 includes approximately 50 percent of the roof area of the solids handling building, approximately 33 percent of the digested sludge holding tank, the areas around the microfiltration/ultrafiltration facility, the area between the solids handling building and the Laguna Channel, and Electrical Substation D. This area includes paved areas, landscaped areas, roof area, and undeveloped areas adjacent to Laguna Channel. Stormwater runoff in this area discharges into a catch basin on the west side of the site and is directed to the head of the plant for treatment. The catch basin is designed with an overflow bypass, and excess stormwater flows are discharged directly into Laguna Channel during extreme events.

#### **Drainage Area 8**

Drainage Area 8 includes the area on the west side of the plant bordering the edge of the plant parcel. This area includes the portion of Laguna Channel on plant property. This area includes creek area and unmaintained unpaved areas. Stormwater runoff in this drainage area discharges off-site by sheet flow directly into Laguna Channel or through Laguna Channel. No industrial activities occur within Drainage Area 8 due to its proximity to the environmentally sensitive area.

#### Drainage Area 9

Drainage Area 9 includes the scrubber building, approximately 55 percent of the recycled water storage tank, approximately 30 percent of the digesters and digester control building, and the areas between the structures and the east entrance to the plant. This area includes landscaped areas, roof areas, and paved areas. Stormwater runoff from this area discharges to the east entrance to the plant, then into the channel in Drainage Area 15.

#### **Drainage Area 10**

Drainage Area 10 includes approximately 20 percent of the recycled water storage tank, approximately 15 percent of the digesters and digester control building, the cogeneration building, and roadway, parking areas and vegetated area south of the digesters and recycled water storage tank up to the property line. This area includes landscaped areas, unmaintained vegetated areas, roof areas, and paved areas. Stormwater runoff from this drainage area discharges to the parking area within this area, through gaps in the curb, through an unmaintained vegetated area, off site to El Estero Drain.

#### **Drainage Area 11**

Drainage Area 11 includes approximately 20 percent of the recycled water storage tank, and roadway and landscaped areas to the southeast of the recycled water storage tank. This area includes landscaped areas, unmaintained vegetated areas, roof areas, and paved areas. Stormwater runoff from this drainage area discharges to a storm drain inlet at the southeast corner of the plant, which discharges offsite to El Estero Drain.

#### **Drainage Area 12**

Drainage Area 12 includes approximately 10 percent of the recycled water storage tank, and a portion of the roadway at the southeast corner of the plant. The area includes roof area,

landscaped areas, paved areas, and unmaintained areas. Stormwater in this area discharges to the north into Drainage Area 19.

#### **Drainage Area 13**

Drainage Area 13 includes the central portion of the recycled water pump station area. This includes concrete, paved and landscaped areas. This drainage area discharges onto Quinientos Street.

#### **Drainage Area 14**

Drainage Area 14 includes the west portion of the recycled water pump station area. This includes landscaped areas, roof areas, and an equipment enclosure. This drainage area discharges onto Quinientos Street.

### **Drainage Area 15**

Drainage Area 15 includes the area between Drainage Areas 6 and 9, and the property boundary on the east side of the plant. This area includes landscaped areas and a concrete channel. This drainage area receives stormwater flows from Drainage Area 9 (which itself receives flow from Drainage Areas 12, 13, 14, 16, and 19). Stormwater from this drainage area flows into the 36-inch concrete storm drain line into the primary storm drain system, eventually draining to Laguna Channel.

#### **Drainage Area 16**

Drainage Area 16 includes the portion of Quinientos Street on the plant property. This drainage area consists of paved areas and receives stormwater from Drainage Area 12, Drainage Area 13, and Drainage Area 4. Stormwater in this drainage area flows through Drainage Area 9, into Drainage Area 15, eventually draining to Laguna Channel.

#### **Drainage Area 17**

Drainage Area 17 includes the area near the northwest corner of the plant property between Contained Drainage Area M and Drainage Area 3. This drainage area consists of unpaved and landscaped areas inside the fence line of the Plant. The entire drainage area is permeable, and is partially vegetated. During any use of this area, the Plant requires the implementation of all applicable BMPs and stormwater pollution prevention measures to protect stormwater quality. Stormwater from this drainage area currently sheet flows onto Drainage Area 3, and eventually flows through Drainage Area 3 to Laguna Channel.

#### **Drainage Area 18**

Drainage Area 18 includes areas on the south and west sides of the plant that border the edges of the plant parcel. This area includes landscaped areas, unpaved areas, and the digester gas flare. This drainage area currently receives flow from Drainage Area 10. Stormwater runoff in this drainage area discharges off-site by sheet flow directly into Laguna Channel, or offsite by sheet flow to the parcel to El Estero Drain. No industrial activities occur within Drainage Area 18.

#### **Drainage Area 19**

Drainage Area 19 includes area on the south and west sides of the recycled water pump station area. The area includes roof area, landscaped areas, paved areas, unmaintained areas, equipment storage, and a gravel parking lot. Stormwater enters this drainage area from Drainage Area 12.

Stormwater runoff in this drainage area discharges through a concrete channel on the south end of the Drainage Area, through the gravel parking lot on the northeast of the recycled water pump station area via a concrete swale, onto Quinientos Street.

#### 2.1.5 Stormwater Run-On from Offsite Areas

Due to topography at EEWTP, there is little anticipated offsite run-on to this site. The EEWTP is isolated on a slight hill that prevents off-site run-on during most precipitation events. However; the 36 inch storm drain that runs through the EEWTP site does receive stormwater flows from neighboring properties. During extreme events, the 36 inch storm drain surcharges and flooding occurs near the outfall to the Laguna Channel and low lying areas upstream.

Portions of the EEWTP are within the 100-year flood plain, as indicated by the Flood Insurance Rate Maps (FIRM) published by the Federal Emergency Management Agency. Based on the FIRM maps, during a 100-year storm event, significant portions of the site will be inundated with stormwater.

The site flooding is caused by rising water levels in the Laguna Channel on the west side of the site and the El Estero Drain on the south side of the site. When these water levels rise, the stormwater flows from the EEWTP site and comingled flows in the 36 inch storm drain pipe cannot discharge by gravity into the Laguna Channel. Currently, there are no feasible options for eliminating site flooding, but a Stormwater Implementation Plan is being developed for EEWTP that will attempt to address the flooding issues to the maximum extent practicable.

#### 2.1.6 Geology and Groundwater

The site is underlain entirely by fill material of an unknown depth. According to the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey, the fill material is classified as Aquents (AC) which are considered poorly drained soils. The profile of the fill material is variable, and the Web Soil Survey states that the depth to restrictive features is more than 80 inches. The depth to water table is approximately 24 to 72 inches, and the groundwater movement is generally southwest toward the Pacific Ocean.

This soil classification is not ideal for infiltration BMPs, and on-site soil investigations will be needed in the future before infiltration BMPs are implemented.

#### 2.2 OPERATIONS SCHEDULE

The EEWTP facility operates 24 hours per day, seven days per week. Industrial activities occurring on a continuous basis include all activities and processes necessary to treat wastewater. Variations in actual staffing hours may occur as necessary.

This SWPPP will be implemented, and a copy made available to all facility staff at all times. A copy will be available to regulatory agency personnel upon request.

#### 2.3 POLLUTANT SOURCE ASSESSMENT

This section presents a list of all industrial materials and potential pollutant sources in the uncontained areas of the EEWTP facility. It identifies specific pollutants associated with these sources and pollutant sources that are most susceptible to stormwater exposure.

#### 2.3.1 Description of Potential Pollutant Sources

The majority of industrial materials used at EEWTP are stored indoors and therefore pose a low risk for contaminating stormwater runoff. Pollutant sources such as process sludge and Aboveground Storage Tanks (ASTs) containing diesel fuel are stored outdoors, but are confined within contained drainage areas that convey stormwater runoff to the head of the plant for treatment. These materials also pose a low risk for stormwater contamination as long as the stormwater collection and conveyance systems are functional and properly maintained.

The pollutant sources with greater risk for contributing to stormwater contamination are located within uncontained drainage areas and include plant process buildings and equipment, electrical substations, a diesel generator, and erodible surface areas described in Table 2.2. These activities and associated materials will or could potentially contribute pollutants to stormwater runoff. The anticipated activities and associated pollutants provided in Table 2.2 are the basis for selecting the BMPs for the facility as described in Section 3. Locations of all material stockpiles, storage areas, anticipated pollutants, and associated BMPs are show on the Site Maps in Appendix A.

Table 2.2 Industrial Activities and Associated Materials

| <b>Industrial Activity</b>                                 | Associated<br>Industrial<br>Materials | Material Quantity | Material Physical<br>Characteristics | Material Location                | Associated<br>Pollutants                            | Stormwater<br>Exposure<br>Pathway |
|--|---------------------------------------|-------------------|--------------------------------------|----------------------------------|---|-----------------------------------|
| Southern California<br>Edison (SCE)<br>Electric Substation | Mineral Oil<br>Dielectric Fluid       | 134 gallons       | Liquid; flammable                    | Drainage Area 14                 | Oil & Grease  | Equipment Leak                    |
| 230 KW Generator<br>Day Tank                               | Diesel                                | 400 gallons       | Liquid; flammable                    | Drainage Area 19                 | Oil & Grease  | Leaks and Spills                  |
| Wastewater<br>Treatment Process                            | Process Structures and Equipment      | NA                | NA                                   | Drainage Areas 4, 6, 7, 9-14, 19 | Oil & Grease, pH,<br>TSS, COD,<br>Nutrients, Metals | Direct Precipitation and Runoff   |
| Storage  | Erodible Surfaces                     | NA                | NA                                   | Drainage Areas 6,<br>17 and 19   | TSS, Oil & Grease                                   | Direct Precipitation and Runoff   |

## 2.3.2 Significant Spills and Leaks

Table 2.3 includes a list of industrial materials where spills and leaks have potential to occur, and includes material characteristics, quantities, locations, and containers. Spills and leaks of industrial materials in significant quantities that have the potential to be discharged from the facility's storm water conveyance system (as defined in the General permit) will be prevented by implementing the BMPs described in Section 3.

Table 2.3 Potential Material Spills and Leaks

| Industrial<br>Material          | Material<br>Quantity | Material Physical<br>Characteristics | Material<br>Container  | Material<br>Location |  |
|---------------------------------|----------------------|--------------------------------------|------------------------|----------------------|--|
| Mineral Oil<br>Dielectric Fluid | 134 gallons          | Liquid; flammable                    | Equipment<br>Reservoir | Drainage Area<br>14  |  |
| Diesel                          | 400 gallons          | Liquid; flammable                    | Equipment<br>Reservoir | Drainage Area<br>19  |  |

#### 2.4 IDENTIFICATION OF NON-STORMWATER DISCHARGES (NSWDs)

Non-stormwater discharges (NSWDs) consist of discharges which do not originate from precipitation events. The General Permit provides allowances for specified NSWDs provided they:

- Do not cause erosion;
- Do not carry other pollutants;
- Are not prohibited by the local MS4; and
- Do not require a separate NPDES Permit from the Regional Water Board.

NSWDs into storm drainage systems or waterways, which are not authorized under the General Permit and listed in the SWPPP, or authorized under a separate NPDES permit, are prohibited.

Non-stormwater discharges that are authorized at this facility include the following:

- Fire-hydrant and fire prevention or response system flushing;
- Potable water sources related to the operation, maintenance, or testing of potable water systems; and
- Irrigation watering and landscape drainage.

These authorized NSWDs will be managed with the stormwater and non-stormwater BMPs described in Section 3 of this SWPPP. These BMPs are implemented to:

• Reduce or prevent the contact of authorized NSWDs with materials or equipment that are potential sources of pollutants;

- Reduce, to the extent practicable, the flow or volume of authorized NSWDs;
- Ensure that authorized NSWDs do not contain quantities of pollutants that cause or contribute to an exceedance of water quality standards; and
- Reduce or prevent discharges of pollutants in authorized NSWDs in a manner that
  reflects best industry practice considering technological availability and economic
  practicability and achievability.

Monthly visual observations will be conducted according to the General Permit (Section XI.A.1) for NSWDs and sources to ensure adequate BMP implementation and effectiveness. Monthly visual observations include observations for evidence of unauthorized NSWDs.

Activities at this site that may result in unauthorized non-stormwater discharges include:

- Vehicle and equipment washing; and
- Vehicle and equipment maintenance.

Steps will be taken, including the implementation of appropriate BMPs as defined in Section 3, to ensure that unauthorized NSWDS are eliminated, controlled, disposed off-site, or treated onsite.

Additionally, the following discharges are authorized by a regional NPDES permit:

 Treated wastewater effluent and desalination brine (Order No. R3-2010-0011, NPDES No. CA0048143).

#### 2.5 REQUIRED SITE MAP INFORMATION

The facility's Site Maps are provided in Appendix A, and include all information required by the General Permit. The maps include information regarding the facility boundary and stormwater drainage areas, nearby water bodies, locations of stormwater collection and conveyance systems including outfalls, locations and descriptions of all industrial activities and materials, and locations and descriptions of all structural control measures.

A summary of all information provided in the Site Map is provided in Table 2.5 below.

Table 2.5 Required Site Map Information Checklist

| Included on<br>Site Maps?<br>Yes/No/ NA | Required Element  |
|---|---|
| Yes                                     | The facility boundary   |
| Yes                                     | Stormwater drainage areas within the facility boundary                      |
| Yes                                     | Portions of any drainage area impacted by discharges from surrounding areas |
| Yes                                     | Flow direction of each drainage area  |
| NA                                      | On-facility surface water bodies  |
| Yes                                     | Areas of soil erosion   |

Table 2.5 Required Site Map Information Checklist

| Included on<br>Site Maps?<br>Yes/No/ NA | Required Element  |  |  |  |
|---|---|--|--|--|
| Yes                                     | Location(s) of nearby water bodies (such as rivers, lakes, wetlands, etc.)  |  |  |  |
| NA                                      | Location(s) of municipal storm drain inlets that may receive the facility's industrial stormwater discharges and authorized NSWDs |  |  |  |
| Yes                                     | Locations of stormwater collection and conveyance systems and associated points of discharge, and direction of flow               |  |  |  |
| Yes                                     | Any structural control measures (that affect industrial stormwater discharges, authorized NSWDs, and run-on)                      |  |  |  |
| Yes                                     | All impervious areas of the facility, including paved areas, buildings, covered storage areas, or other roofed structures         |  |  |  |
| Yes                                     | Locations where materials are directly exposed to precipitation   |  |  |  |
| NA                                      | Locations where significant spills or leaks (Section X.G.1.d of the General Permit) have occurred                                 |  |  |  |
| Yes                                     | Areas of industrial activity subject to the General Permit  |  |  |  |
| Yes                                     | All storage areas and storage tanks   |  |  |  |
| NA                                      | Shipping and receiving areas  |  |  |  |
| NA                                      | Fueling areas   |  |  |  |
| Yes                                     | Vehicle and equipment storage/maintenance areas   |  |  |  |
| Yes                                     | Material handling and processing areas  |  |  |  |
| Yes                                     | Waste treatment and disposal areas  |  |  |  |
| Yes                                     | Dust or particulate generating areas  |  |  |  |
| NA                                      | Cleaning and material reuse areas   |  |  |  |
| Yes                                     | Any other areas of industrial activity which may have potential pollutant sources   |  |  |  |

## Section 3 Best Management Practices

#### 3.1 MINIMUM BMPs

All minimum BMPs that are required by the General Permit and necessary to meet the facility conditions will be implemented. Guidance for BMP implementation is provided in the CASQA Stormwater BMP Handbook Portal: Industrial and Commercial Fact Sheets and the relevant fact sheets are included in Appendix G. Sections 3.1.1 through 3.1.5 list the requirements for each of these minimum BMPs. Minimum BMPs will be implemented for additional targeted industrial activities, equipment, and materials as necessary. If any of the required minimum BMPs are applicable but cannot be implemented, an explanation and alternative approach will be provided in the following sections.

Table 3.1 provides a list of the five minimum General Permit BMP elements that are included in the relevant BMP fact sheets and indicates which BMPs are implemented at the facility. Employee Training, described in Section 3.1.6, and Quality Assurance and Record Keeping, described in Section 3.1.7, are additional minimum BMPs that will be implemented.

As required by the General Permit, a summary of all implemented BMPs is included in Section 3.3. The schedule for BMP implementation and the requirements for inspection and maintenance are contained in Section 4.

Table 3.1 Minimum BMPs

| CASQA                   |   | Addresses Minimum General Permit BMP Requirements |                             |   |   | BMP to be Implemented?             |     |    |                   |
|-------------------------|---|---|-----------------------------|---|---|------------------------------------|-----|----|-------------------|
| Fact<br>Sheet<br>Number | CASQA<br>BMP Fact Sheet Name                    | Good<br>Housekeeping                              | Preventative<br>Maintenance | Spill and<br>Leak<br>Prevention<br>and Response | Material<br>Handling and<br>Waste<br>Management | Erosion and<br>Sediment<br>Control | YES | NO | Not<br>Applicable |
| SC-10                   | Non-Stormwater Discharges                       | ✓   |                             | ✓   |   |                                    | X   |    |                   |
| SC-11                   | Spill Prevention, Control, and<br>Cleanup       |   |                             | ✓   |   |                                    | X   |    |                   |
| SC-20                   | Vehicle and Equipment Fueling                   | ✓   | ✓                           | ✓   | ✓   |                                    | X   |    |                   |
| SC-21                   | Vehicle and Equipment<br>Cleaning               | ✓   | <b>✓</b>                    | <b>√</b>  | ✓   |                                    | X   |    |                   |
| SC-22                   | Vehicle and Equipment<br>Maintenance and Repair | ✓   | ✓                           | ✓   | ✓   |                                    | X   |    |                   |
| SC-30                   | Outdoor Loading and<br>Unloading                | ✓   |                             | ✓   | ✓   |                                    | X   |    |                   |
| SC-31                   | Outdoor Liquid Container<br>Storage             | ✓   | ✓                           | ✓   | ✓   |                                    | X   |    |                   |
| SC-32                   | Outdoor Equipment Operations                    | ✓   | ✓                           | ✓   | 1   |                                    | X   |    |                   |
| SC-33                   | Outdoor Storage of Raw<br>Materials             | ✓   | ✓                           | ✓   |   | ✓                                  | X   |    |                   |
| SC-34                   | Waste Handling and Disposal                     | ✓   | ✓                           | ✓   | ✓   |                                    | X   |    |                   |
| SC-35                   | Safer Alternative Products                      |   |                             |   |   |                                    | X   |    |                   |
| SC-40                   | Contaminated or Erodible<br>Surfaces            |   |                             |   |   | ✓                                  | X   |    |                   |
| SC-41                   | Building and Grounds<br>Maintenance             | ✓   |                             | ✓   | ✓   |                                    | X   |    |                   |
| SC-42                   | Building Repair, Remodeling, and Construction   | ✓   |                             | ✓   | ✓   | ✓                                  | X   |    |                   |
| SC-43                   | Parking Area Maintenance                        | ✓   | ✓                           | ✓   |   |                                    | X   |    |                   |
| SC-44                   | Drainage System Maintenance                     | ✓   | ✓                           | ✓   |   |                                    | X   |    |                   |
| Additional              | BMPs Implemented:                               |   | <u>'</u>                    |   | •   |                                    | ı   | ı  |                   |
|                         |   | Routine Road                                      | l and Parking Lot           | Sweeping (Good                                  | Housekeening)                                   |                                    |     |    |                   |
|                         |   | Ttoutille Itout                                   | - und I unking Lot          | z weeping (Good                                 | 115usenceping)                                  |                                    |     |    |                   |

## 3.1.1 Good Housekeeping

The following good housekeeping measures will be implemented in accordance with the General Permit (Section X.H.1.a):

- On a monthly basis and before precipitation events, observe all outdoor areas associated
  with industrial activity including stormwater discharge locations, drainage areas,
  conveyance systems, waste handling/disposal areas, and perimeter areas impacted by offfacility materials or stormwater run-on to determine housekeeping needs. Any identified
  debris, waste, spills, tracked materials, or leaked materials will be cleaned and disposed
  of properly;
- Minimize or prevent material tracking;
- Minimize dust generated from industrial materials or activities;
- Ensure that all facility areas impacted by rinse/wash waters are cleaned as soon as possible;
- Cover all stored industrial materials that can be readily mobilized by contact with stormwater;
- Contain all stored non-solid industrial materials or wastes (e.g., particulates, powders, shredded paper, etc.) that can be transported or dispersed via wind or contact with stormwater:
- Prevent disposal of any rinse/wash waters or industrial materials into the stormwater conveyance system;
- Minimize stormwater discharges from non-industrial areas (e.g., stormwater flows from employee parking area) that contact industrial areas of the facility; and
- Minimize authorized NSWDs from non-industrial areas (e.g., potable water, fire hydrant testing, etc.) that contact industrial areas of the facility.

BMPs to be implemented are summarized in Table 3.1 and the BMP fact sheets are included in Appendix G.

Roadway and parking lots will be cleaned with street sweepers twice per month to remove accumulated materials that could lead to stormwater contamination. The first sweeping will occur during the first week of the month and second sweeping will occur during the third week of the month. Street sweeping is performed by an outside contractor.

#### 3.1.2 Preventative Maintenance

The following preventative maintenance measures will be implemented in accordance with the General Permit (Section X.H.1.b):

- Identify all equipment and systems used outdoors that may spill or leak pollutants;
- On a monthly basis and before precipitation events, observe the identified equipment and systems to detect leaks, or identify conditions that may result in the development of leaks;

- Establish an appropriate schedule for maintenance of identified equipment and systems; and
- Establish procedures for prompt maintenance and repair of equipment, and maintenance of systems when conditions exist that may result in the development of spills or leaks.

Specific preventative maintenance BMPs to be implemented at the facility are provided in Table 3.1 and the BMP fact sheets are included in Appendix G.

### 3.1.3 Spill and Leak Prevention and Response

The following spill and leak prevention and response measures will be implemented in accordance with the General Permit (Section X.H.1.c):

- Establish procedures and/or controls to minimize spills and leaks;
- Develop and implement spill and leak response procedures to prevent industrial materials from discharging through the stormwater conveyance system. Spilled or leaked industrial materials will be cleaned promptly and disposed of properly;
- Identify and describe all necessary and appropriate spill and leak response equipment, location(s) of spill and leak response equipment, and spill or leak response equipment maintenance procedures; and
- Identify and train appropriate spill and leak response personnel.

Specific spill and leak prevention and response BMPs to be implemented at the facility are provided in Table 3.1 and the BMP fact sheets are included in Appendix G.

#### 3.1.4 Material Handling and Waste Management

The following material handling and waste management measures will be implemented in accordance with the General Permit (Section X.H.1.d):

- Prevent or minimize handling of industrial materials or wastes that can be readily mobilized by contact with stormwater during a storm event;
- Contain all stored non-solid industrial materials or wastes (e.g., particulates, powders, shredded paper, etc.) that can be transported or dispersed by the wind or contact with stormwater during handling;
- Cover industrial waste disposal containers and industrial material storage containers that contain industrial materials when not in use;
- Divert run-on and stormwater generated from within the facility away from all stockpiled materials;
- Clean all spills of industrial materials or wastes that occur during handling in accordance with the spill response procedures described in Section 3.1.3; and
- Observe and clean as appropriate, any outdoor material or waste handling equipment or containers that can be contaminated by contact with industrial materials or wastes.

Specific material handling and waste management BMPs to be implemented at the facility are provided in Table 3.1 and the BMP fact sheets are included in Appendix G.

#### 3.1.5 Erosion and Sediment Controls

The following erosion and sediment control measures will be implemented in accordance with the General Permit (Section X.H.1.e):

- Implement effective wind erosion controls;
- Provide effective stabilization for all disturbed soils and other erodible areas prior to a forecasted storm event;
- Maintain effective perimeter controls and stabilize all site entrances and exits to sufficiently control discharges of erodible materials from discharging or being tracked off the site;
- Divert run-on and stormwater generated from within the facility away from all erodible materials; and
- If sediment basins are implemented, ensure compliance with the design storm standards in Section X.H.6. of the General Permit.

Specific erosion and sediment control BMPs to be implemented at the facility are provided in Table 3.1 and the BMP fact sheets are included in Appendix G.

## 3.1.6 Employee Training Program

An employee training program will be implemented in accordance with the following requirements in the General Permit (Section X.H.1.f):

- Ensure that all team members implementing the various compliance activities of this SWPPP are properly trained in topics including but not limited to: BMP implementation, BMP effectiveness evaluations, visual observations, and monitoring activities;
- Prepare or acquire appropriate training manuals or training materials;
- Identify which personnel need to be trained, their responsibilities, and the type of training they will receive;
- Provide a training schedule; and
- Maintain documentation of all completed training classes and the personnel that received training in the SWPPP.

The Pollution Prevention Team will be trained in implementing the various compliance activities specified in this SWPPP, and documentation of training activities is retained in SWPPP Appendix C. To promote stormwater management awareness specific for this facility, refresher training will be provided annually prior to the wet season.

Task specific training for all employees engaged in activities that have the potential to cause stormwater pollution will be conducted when new employees are hired and refresher training will be provided annually prior to the wet season.

This facility has baseline status under the General Permit, and training will be performed by a qualified member of the pollution prevention team. The qualified team member will be responsible for providing information during training sessions and subsequently completing the training logs shown in Appendix C, which identifies the site-specific stormwater topics covered

as well as the names of site personnel who attended the meeting. Each team member will be trained in the specific role they are responsible to undertake.

## 3.1.7 Quality Assurance and Record Keeping

The following quality assurance and record keeping activities will be performed in accordance with the requirements in the General Permit (Section X.H.1.g):

- Develop and implement management procedures to ensure that appropriate staff implements all elements of the SWPPP, including the Monitoring Implementation Plan (SWPPP Section 5);
- Develop a method of tracking and recording the implementation of BMPs identified in the SWPPP; and
- Maintain the BMP implementation records, training records, and records related to any spills and clean-up related response activities for a minimum of five (5) years as required in the General Permit (Section XXI.J.4).

BMPs will be implemented according to the schedule and procedures presented in SWPPP Section 4. BMPs will be implemented by properly trained team members as documented in Appendix C.

Visual observations will be performed as described in SWPPP Section 5.5. Potential pollutant sources and BMPs will be inspected during visual observations, and new BMPs will be implemented as needed. Records of visual observations of BMP implementation will be retained in Appendix H.

Paper or electronic records of documents required by this SWPPP will be retained for a minimum of five (5) years from the date submitted for the following items (as applicable):

- Employee Training Records;
- BMP Implementation Records;
- Spill and Clean-up Related Records;
- Records of Monitoring Information
  - o The date, exact location, and time of sampling or measurement;
  - o The dates analyses were performed;
  - o The individuals and/or laboratories that performed the analyses;
  - o The analytical techniques or methods used; and
  - o The results of such analyses;
- Level 1 ERA Reports;
- Level 2 ERA Action Plan;
- Level 2 ERA Technical Report; and
- Annual Reports.

#### 3.2 ADVANCED BMPs

## 3.2.1 Exposure Minimization BMPs

As described in Section 2, stormwater runoff from a large portion of the EEWTP site (49%) is contained and discharges directly to the headworks of the plant for treatment. The majority of industrial activity and industrial materials are within these contained basins and/or within covered buildings and are therefore not exposed to direct precipitation or runoff. The locations of contained drainage areas and industrial materials are provided in the Site Maps.

Storm resistant shelters are planned to be installed onsite to prevent the contact of stormwater with industrial activities and material. The locations of these proposed shelters and associated industrial activities and materials are presented in Table 3.2.

Table 3.2 Proposed Exposure Minimization BMPs

| Shelter Location/Description | Associated Industrial Activity/Material  |
|------------------------------|--|
| Drainage Area 10             | Process Equipment                        |
| Drainage Area 14             | Electrical Substation – Dielectric Fluid |
| Drainage Area 19             | 230 KW Generator – Diesel                |

The remaining industrial activities exposed to direct precipitation include process equipment and buildings where installation of exposure minimization BMPs is impractical. Potential stormwater pollutants from these areas will be controlled using other minimum and advanced BMPs as described in this SWPPP.

## 3.2.2 Stormwater Containment and Discharge Reduction BMPs

Stormwater containment and discharge reduction BMPs include BMPs that divert, reuse, contain, or reduce the volume of stormwater runoff. Currently, there are no stormwater containment and discharge reduction BMPs being implemented at the EEWTP facility. However, a stormwater implementation plan is currently being developed, and these BMPs may be implemented in the future. The SWPPP will be amended as necessary when additional advanced BMPs are implemented onsite.

Table 3.3 Stormwater Containment and Discharge Reduction BMPs

| CASQA<br>Fact   |                          | Meets<br>Advanced      | BMP Used |    | BMP Location, Runoff Sources, and Potential |  |
|-----------------|--------------------------|------------------------|----------|----|---|--|
| Sheet<br>Number | CASQA BMP Factsheet Name | BMP<br>Requirement     | YES      | NO | Pollutants                                  |  |
| TC-10           | Infiltration Trench      | ✓                      |          | X  |   |  |
| TC-11           | Infiltration Basin       | ✓                      |          | X  |   |  |
| TC-12           | Harvest and Reuse        | ✓                      |          | X  |   |  |
| TC-20           | Wet Pond                 | ✓                      |          | X  |   |  |
| TC-21           | Constructed Wetland      | ✓                      |          | X  |   |  |
| TC-22           | Extended Detention Basin | ✓                      |          | X  |   |  |
| TC-30           | Vegetated Swale          |                        |          |    |   |  |
| TC-31           | Vegetated Buffer Strip   |                        |          |    |   |  |
| TC-32           | Bioretention             | ✓                      |          | X  |   |  |
| TC-40           | Media Filter             |                        |          |    |   |  |
| TC-50           | Water Quality Inlet      |                        |          |    |   |  |
| TC-60           | Multiple Systems         | ✓                      |          | X  |   |  |
| MP-20           | Biotreatment             |                        |          |    |   |  |
| MP-40           | Stormwater Filter        |                        |          |    |   |  |
| MP-50           | Wet Vault                |                        |          |    |   |  |
| MP-51           | Gravity Separator        |                        |          |    |   |  |
| MP-52           | Drain Insert             |                        |          |    |   |  |
| Alternate       | BMPs Used:               | If used, state reason: |          |    |   |  |
|                 |                          |                        |          |    |   |  |
|                 |                          |                        |          |    |   |  |

#### 3.2.3 Treatment Control BMPs

Treatment control BMPs include one or more mechanical, chemical, biologic, physical, or any other treatment process technology and is sized to meet the treatment control design storm standard. Specific treatment control BMPs planned to be implemented at the EEWTP facility are provided in Table 3.4 and the BMP fact sheets are included in Appendix G. Planned treatment Control BMPs at EEWTP include catch basin filter inserts and vegetated buffer strips. Catch basin filter inserts will be installed in all catch basins located within uncontained (exposed) drainage areas. This includes the catch basins in Drainage Areas 2 and 11. Vegetated buffer strips are planned within Drainage Areas 10 and 14. The locations of the two catch basins inserts and the vegetated buffer strips are shown in the Site Maps provided in Appendix A.

### 3.2.4 Other Advanced BMPs

No other advanced BMPs are currently being implemented at the EEWTP.

Table 3.4 Treatment Control BMPs

| CASQA<br>Fact CASQA BMP |                             | Addresses<br>O&M for | BNIP Used |    |  |
|-------------------------|-----------------------------|----------------------|-----------|----|--|
| Sheet<br>Number         | Factsheet Name              | Advanced<br>BMPs     | YES       | NO | BMP Location, Runoff Sources, and Potential Pollutants   |
| TC-10                   | Infiltration Trench         | ✓                    |           | X  |  |
| TC-11                   | Infiltration Basin          | ✓                    |           | X  |  |
| TC-12                   | Harvest and Reuse           |                      |           |    |  |
| TC-20                   | Wet Pond                    | ✓                    |           | X  |  |
| TC-21                   | Constructed Wetland         | ✓                    |           | X  |  |
| TC-22                   | Extended Detention<br>Basin | ✓                    |           | X  |  |
| TC-30                   | Vegetated Swale             | ✓                    |           | X  |  |
| TC-31                   | Vegetated Buffer Strip      | <b>√</b>             |           | X  | Planned implementation in Drainage Area 10 and 14; receive runoff from paved roadways and industrial buildings. Potential pollutants include oil & grease, pH, TSS, COD, metals, and Nutrients.                                      |
| TC-32                   | Bioretention                | ✓                    |           | X  |  |
| TC-40                   | Media Filter                | ✓                    |           | X  |  |
| TC-50                   | Water Quality Inlet         | ✓                    |           | X  |  |
| TC-60                   | Multiple Systems            | ✓                    |           | X  |  |
| MP-20                   | Biotreatment                | ✓                    |           | X  |  |
| MP-40                   | Stormwater Filter           | ✓                    |           | X  |  |
| MP-50                   | Wet Vault                   | ✓                    |           | X  |  |
| MP-51                   | Gravity Separator           | ✓                    |           | X  |  |
| MP-52                   | Drain Insert                | <b>√</b>             |           | X  | Planned implemented in catch basins within Drainage Areas 2 and 11; they receive runoff from paved roadways, parking lots, and industrial buildings. Potential pollutants include oil & grease, pH, TSS, COD, metals, and Nutrients. |
| Alternate               | Alternate BMPs Used:        |                      |           |    | If used, state reason:   |
|                         |                             |                      |           |    |  |

### 3.3 BMP SUMMARY TABLE

Table 3.5 summarizes the industrial activities, materials, pollutant sources, potential pollutants, and BMPs being implemented to prevent discharge of pollutants in stormwater runoff. Descriptions of the specific BMPs being implemented were provided in previous subsections. Implementation and maintenance of BMPs is described in Section 4.

Table 3.5 BMP Summary Table

| Industrial<br>Activity/Material | Pollutant Sources                | Potential Pollutants                          | BMPs Implemented  | CASQA BMP<br>Fact Sheet<br>Number      | Required Equipment and Tools      |
|---------------------------------|----------------------------------|---|---|--|-----------------------------------|
| Roads and Parking Lots          | Vehicular Traffic                | Oil & Grease, TSS                             | Street Sweeping,<br>Parking Area<br>Maintenance   | SC-43                                  | Refer to CASQA BMP Fact<br>Sheets |
| Electric Substation             | Mineral Oil Dielectric<br>Fluid  | Oil & Grease                                  | Vehicle and Equipment<br>Maintenance and<br>Repair; Outdoor<br>Equipment Operations;<br>Safer Alternative<br>Products | SC-22; SC-32;<br>SC-35                 | Refer to CASQA BMP Fact<br>Sheets |
| 230 KW Generator Day<br>Tank    | Diesel                           | Oil & Grease                                  | Vehicle and Equipment<br>Maintenance and<br>Repair; Outdoor<br>Equipment Operations                                   | SC-22; SC-32                           | Refer to CASQA BMP Fact<br>Sheets |
| Wastewater Treatment<br>Process | Process Structures and Equipment | Oil & Grease, pH, TSS, COD, Nutrients, Metals | All Minimum BMPs;<br>Vegetated Buffer Strip;<br>Catch Basin Filter<br>Insert (when installed)                         | All SC fact<br>sheets; TC-31;<br>MP-52 | Refer to CASQA BMP Fact<br>Sheets |
| Parking/Storage                 | Erodible Surfaces                | TSS   | Contaminated or<br>Erodible Areas   | SC-40                                  | Refer to CASQA BMP Fact<br>Sheets |

### 4.1 BMP IMPLEMENTATION SCHEDULE

The schedule for implementing all minimum and advanced BMPs is presented in Table 4.1. BMPs will be implemented as necessary to reduce or prevent transport of industrial pollutants in stormwater runoff. Slight modifications to this schedule may be necessary to achieve this goal. Records of BMP implementation will be included in Appendix H.

Table 4.1 BMP Implementation Schedule

| Industrial<br>Activity/Material and<br>Location                       | BMP Description  | Person<br>Responsible for<br>Implementing<br>BMP | Date of Initial<br>Implementation | Implementation<br>Duration  |
|---|--|--|-----------------------------------|---|
| Roads and Parking<br>Lots   | Street Sweeping,<br>Parking Area<br>Maintenance  | Wastewater<br>Treatment Plant<br>Operators       | July 1, 2015                      | Continuous. Inspect roads and parking lots monthly and before precipitation events. |
| Electric Substation E<br>(Drainage Area 14)                           | Vehicle and Equipment Maintenance and Repair; Outdoor Equipment Operations; Safer Alternative Products | Wastewater<br>Treatment Plant<br>Operators       | July 1, 2015                      | Continuous. Inspect electric substation monthly and before precipitation events.    |
| 230 KW Generator<br>Day Tank (Drainage<br>Area 19)                    | Vehicle and Equipment Maintenance and Repair; Outdoor Equipment Operations                             | Wastewater<br>Treatment Plant<br>Operators       | July 1, 2015                      | Continuous. Inspect generator monthly and before precipitation events.              |
| Wastewater Treatment<br>Process (Drainage<br>Areas 4, 6, 7, 9-14, 19) | All Minimum<br>BMPs  | Wastewater<br>Treatment Plant<br>Operators       | July 1, 2015                      | Continuous. Inspect outdoor equipment monthly and before precipitation events.      |
| Parking/Storage<br>(Drainage Areas 17<br>and 19)                      | Contaminated or<br>Erodible Areas  | Wastewater<br>Treatment Plant<br>Operators       | July 1, 2015                      | Continuous. Inspect areas monthly and before precipitation events.                  |

#### 4.2 BMP INSPECTION AND MAINTENANCE

The General Permit requires, at a minimum, monthly observations of BMPs, along with inspections during sampling events. Monthly observations will be conducted during daylight hours of scheduled facility operating hours and on days without precipitation. A BMP observation checklist must be filled out for and maintained on-site with the SWPPP. The observation checklist includes the necessary information as discussed in Section 5.5. A blank

observation checklist can be found in Appendix I, and completed checklists will be kept in Appendix H or in an accompanying file/binder that is referenced in the SWPPP and readily accessible on site.

BMPs will be maintained regularly to ensure proper and effective functionality. If necessary, corrective actions will be implemented within 72 hours of identified deficiencies and associated amendments to the SWPPP will be prepared and documented.

Specific guidance for maintenance, observation, and repair of advanced BMPs can be found in the BMP Factsheets in Appendix G.

# Section 5 Monitoring Implementation Plan

#### 5.1 PURPOSE

This Monitoring Implementation Plan was developed to address the following objectives:

- 1. Identify the monitoring team;
- 2. Describe weather and rain event tracking procedures;
- 3. Describe discharge locations, visual observations procedures
- 4. Describe visual observation response procedures;
- 5. Describe sample collection and handling procedures;
- 6. Describe field instrumentation calibration instructions and intervals;
- 7. Provide justification for alternative discharge locations, Representative Sample Reduction (RSR), and Qualified Combined Samples (QCS), as applicable; and
- 8. Provide an example Chain of Custody form to be used when handling and shipping water quality samples to the laboratory.

### 5.2. WEATHER AND RAIN EVENT TRACKING

Stormwater sampling and visual observations will be conducted during Qualified Storm Events (QSEs). A QSE is defined as any precipitation event that produces a discharge for at least one drainage area and is preceded by 48 hours with no discharge from any drainage area. Weather and precipitation forecasts will be tracked to identify potential QSEs.

When targeting a QSE for stormwater sampling, the appropriate team member will weekly consult the National Oceanographic and Atmospheric Administration (NOAA) for weather forecasts. These forecasts can be obtained at http://www.wrh.noaa.gov/lox/. If weekly forecasts indicate potential for significant precipitation, the weather forecast will be closely monitored during the 48 hours preceding the event. Weather reports with precipitation data should be printed and maintained with the SWPPP in MIP Attachment 1 "Weather Reports" to document precipitation totals and antecedent conditions.

#### 5.3 MONITORING LOCATIONS

Monitoring locations are shown on the Site Maps in Appendix A, and are described in Sections 5.5.5 and 5.6.2 for visual monitoring and stormwater sampling, respectively.

Whenever changes in facility operations might affect the appropriateness of sampling locations, the sampling locations will be revised accordingly. All such revisions will be implemented as soon as feasible and the SWPPP amended.

### 5.4 SAMPLE COLLECTION AND VISUAL OBSERVATION EXCEPTIONS

A summary of the safety requirements that apply to sampling personnel is provided below.

• Wear proper footwear and avoid walking on slippery surfaces such as wet rocks and mud.

- Wear appropriate clothing. Monitor temperatures and take breaks as needed to maintain safe working condition. If workers become wet, dry off as soon as possible and replace wet clothing.
- Wear nitrile gloves when handling stormwater and avoid touching eyes, nose, and mouth. Thoroughly wash hands after exposure to stormwater. If entering low-flowing running water, knee high rubber boots or waders are recommended. Workers are not to enter fast moving, high discharges of water.
- Wear hard hats and safety vests when working adjacent to vehicular traffic. Traffic cones
  must be placed as appropriate to warn drivers of a parked vehicle or of work within the
  road shoulder.

The collection of samples or performance of visual observations is not required under the following conditions:

- During dangerous weather conditions such as flooding and electrical storms.
- Outside of scheduled site business hours.

Scheduled site business hours are presented in Section 2.2.

If monitoring (visual observations or sample collection) of the site is unsafe because of the dangerous conditions noted above then the appropriate team member will document the conditions for why an exception to performing the monitoring was necessary. The exception documentation will be filed in MIP Attachment 2 "Monitoring Records".

#### 5.5 VISUAL OBSERVATION PROCEDURES

Visual monitoring includes observations of drainage areas, BMPs, and discharge locations.

- Observations of BMPs are required to identify and record BMPs that need maintenance to operate effectively, that have failed, or that could fail to operate as intended.
- Observations of the drainage areas are required to identify any spills, leaks, uncontrolled pollutant sources, and non-stormwater discharges.
- Observations of discharge locations are required to identify the presence of visible pollutants in stormwater discharged from the facility.

Visual observations will be performed at least once every calendar month during dry conditions. Visual observations will also be performed during stormwater sampling events when discharge is occurring.

### 5.5.1 Monthly Visual Observations

Monthly visual observations are necessary to document the presence of and to identify the source of any pollutants and non-stormwater flows. These should consist of observations of the outdoor facility operations, BMPs, and NSWD observations on days without precipitation.

In the event that monthly visual observations are not performed, an explanation must be provided in the annual report.

#### 5.5.1.1 Outdoor Facility Operations Observations

Observe potential sources of industrial pollutants including industrial equipment and storage areas, and outdoor industrial activities. Record observations of:

- Spills or leaks; and
- Uncontrolled pollutant sources

#### 5.5.1.2 BMP Observations

Observe BMPs to identify and record:

- BMPs that are properly implemented;
- BMPs that need maintenance to operate effectively;
- BMPs that have failed; or
- BMPs that could fail to operate as intended.

### 5.5.1.3 Non-Stormwater Discharge Observations

Observe each drainage area for the presence of or indications of prior unauthorized and authorized non-stormwater discharges. Record:

- Presence or evidence of any non-stormwater discharge (authorized or unauthorized);
- Pollutant characteristics (floating and suspended material, sheen, discoloration, turbidity, odor, etc.); and
- Source of discharge.

For authorized non-stormwater discharges, also document whether BMPs are in place and are functioning to prevent contact with materials or equipment that could introduce pollutants

### 5.5.2 Sampling Event Visual Observations

Sampling event visual observations evaluate the general appearance of the stormwater as an indicator of potential pollutants. These observations will be conducted at the same time sampling occurs at the discharge locations identified in Section 5.6.2. At each discharge location where a sample is obtained, record observations of:

- Floating and suspended materials;
- Oil and grease;
- Discoloration;
- Turbidity;
- Odors: and
- Trash.

When pollutants are observed in the discharged stormwater, follow-up observations of the drainage area will be conducted to identify the probable source of the pollutants.

In the event that a discharge location is not visually observed during the sampling event, the location of the discharge and reasoning for not obtaining observations must be recorded.

### 5.5.3 Visual Monitoring Procedures

Visual monitoring will be conducted by trained team members. The position titles of the site visual monitoring personnel are listed below.

- Project Engineer
- Wastewater Treatment Plant Operator

Visual observations will be documented on the *Visual Observation Log* (see MIP Attachment 3 "Example Forms"). Visual observations will be supplemented with a site specific BMP inspection checklist (Appendix I). Photographs used to document observations will be referenced on the *Visual Observation Log* and maintained with the Monitoring Records in MIP Attachment 2.

The completed logs and checklists will be kept in MIP Attachment 2 "Monitoring Records".

### 5.5.4 Visual Monitoring Follow-Up and Reporting

Correction of deficiencies identified by the observations, including required repairs or maintenance of BMPs, will be initiated and completed as soon as possible. Response actions will include the following:

- Report observations to the Pollution Prevention Team Leader or designated individual;
- Identify and implement appropriate response actions;
- Determine if SWPPP update is needed;
- Verify completion of response actions; and
- Document response actions.

If identified deficiencies require design changes, including additional BMPs, the implementation of changes will be completed as soon as possible, and the SWPPP will be amended to reflect the changes.

BMP deficiencies identified in site observation reports and correction of deficiencies will be tracked on the *BMP Observation Checklist* and will be retained in Appendix I.

Results of visual monitoring must be summarized and reported in the Annual Report.

### 5.5.5 Visual Monitoring Locations

The observations identified in Sections 5.5.1 and 5.5.2 will be conducted at the locations identified in this section.

Visual monitoring locations are shown on the Site Maps in SWPPP Appendix A.

There are 16 drainage areas (uncontained and partially contained) with industrial activity onsite. These drainage areas are shown on the Site Maps in Appendix A and are identified in Table 5.1.

Table 5.1 Facility Drainage Areas

| Location<br>Identifier | Drainage Area Name                  |
|------------------------|-------------------------------------|
| 1                      | Uncontained Drainage Area 1         |
| 2                      | Uncontained Drainage Area 2         |
| 4                      | Partially Contained Drainage Area 4 |
| 5                      | Uncontained Drainage Area 5         |
| 6                      | Uncontained Drainage Area 6         |
| 7                      | Partially Contained Drainage Area 7 |
| 9                      | Uncontained Drainage Area 9         |
| 10                     | Uncontained Drainage Area 10        |
| 11                     | Uncontained Drainage Area 11        |
| 12                     | Uncontained Drainage Area 12        |
| 13                     | Uncontained Drainage Area 13        |
| 14                     | Uncontained Drainage Area 14        |
| 15                     | Uncontained Drainage Area 15        |
| 16                     | Uncontained Drainage Area 16        |
| 17                     | Uncontained Drainage Area 17        |
| 19                     | Uncontained Drainage Area 19        |

There are 10 discharge locations onsite. Site stormwater discharge locations are shown on the Site Maps in Appendix A and Table 5.2 identifies each stormwater discharge location.

Table 5.2 Stormwater Discharge Locations

| Location<br>Identifier | Discharge Location                                |  |  |  |
|------------------------|---|--|--|--|
| 1                      | Uncontained Drainage Area 1                       |  |  |  |
| 2                      | Uncontained Drainage Area 2                       |  |  |  |
| 3                      | Uncontained Drainage Area 17                      |  |  |  |
| 4                      | Partially Contained Drainage Area 4               |  |  |  |
| 5                      | Partially Contained Drainage Area 7               |  |  |  |
| 6                      | Uncontained Drainage Area 9                       |  |  |  |
| 7                      | Uncontained Drainage Area 10                      |  |  |  |
| 8                      | Uncontained Drainage Area 11                      |  |  |  |
| 9                      | Uncontained Drainage Areas 12, 13, 14, 16, and 19 |  |  |  |
| 10                     | Uncontained Drainage Area 6                       |  |  |  |

#### 5.6 SAMPLING AND ANALYSIS PROCEDURES

This section describes the methods and procedures that will be followed for stormwater sampling and analysis. It contains information for sampling schedule, sampling locations, monitoring preparation, analytical constituents, sample collection, sample analysis, and data evaluation and reporting.

### 5.6.1 Sampling Schedule

Stormwater samples at each discharge location will be collected and analyzed from two (2) QSEs within the first half of each reporting year (July 1 to December 31), and two (2) QSEs within the second half of each reporting year (January 1 to June 30). If two QSEs do not occur during the first half of the reporting year, additional samples shall be collected during the second half of the reporting year in order to collect a total of four (4) samples in a single reporting year. Weather and precipitation reports shall be maintained to document the lack of QSEs during a reporting year.

A QSE is a precipitation event that:

- Produces a discharge for at least one drainage area; and
- Is preceded by 48 hours with no discharge from any drainage area.

### 5.6.2 Sampling Locations

Sampling locations include all locations where stormwater is discharged from the site. Discharge locations are shown on the Site Maps in Appendix A and are included in Table 5.4. A total of 10 discharge locations have been identified on the project site for the collection of stormwater runoff samples.

For discharge locations 4 and 5, samples will only be collected when stormwater is observed to flow over the internal bypass weirs within the catch basins and discharge to Laguna Channel. This is anticipated to occur only during events that exceed the 25-year, 24-hour design storm (6.71 inches in 24 hours); all other stormwater flows are routed to the head of the plant for treatment and will not be sampled. Visual observations at discharge locations 4 and 5 will be collected during sampled QSEs, and samples will be collected when discharge to Laguna Channel is observed. If discharge to Laguna Channel is not occurring during a sampled QSE, this will be documented on the field forms.

Table 5.4 Sample Locations

| Sample Location<br>Number | Sample Location Description   | Sample Location Latitude and<br>Longitude<br>(Decimal Degrees)* |
|---------------------------|---|---|
| 1                         | Gutter flow at Yanonali Street entrance.  | 34.41862<br>-119.68437  |
| 2                         | Catch basin within Uncontained Drainage Area 2.   | 34.41849<br>-119.68579  |
| 3                         | Sheet flow leaving Uncontained Drainage<br>Area 17.   | 34.41823<br>-119.68670  |
| 4                         | Catch basin within Partially Contained Drainage Area 4. Samples only collected during extreme events when stormwater discharges to Laguna Channel.      | 34.41724<br>-119.68594  |
| 5                         | Catch basin within Partially Contained Drainage Area 7. Samples only collected during extreme events when stormwater discharges to Laguna Channel.      | 34.41649<br>-119.68580  |
| 6                         | Breaks in curb and gutter within Uncontained Drainage Area 10 discharge to vegetated buffer strip. Samples collected at property boundary (fence line). | 34.41624<br>-119.68400  |
| 7                         | Catch basin within Uncontained Drainage<br>Area 11.   | 34.41636<br>-119.68369  |
| 8                         | Curb and gutter on Quinientos Street adjacent to concrete swale.  | 34.41681<br>-119.68393  |
| 9                         | Curb and gutter adjacent to concrete swale in Drainage Area 15.   | 34.41679<br>-119.68401  |
| 10                        | Break in curb and gutter within Uncontained Drainage Area 6 discharges to concrete channel.   | 34.41739<br>-119.68482  |

\*Datum: NAD\_1983\_StatePlane\_California\_V\_FIPS\_0405\_Feet

### 5.6.3 Monitoring Preparation

Samples on the project site will be collected by the City of Santa Barbara Project Engineer, Wastewater Treatment Plant Operators, and/or by Laboratory staff. An adequate stock of monitoring supplies and equipment for sampling will be available onsite prior to a sampling event. Monitoring supplies and equipment will be stored in a cool temperature environment that will not come into contact with rain or direct sunlight. Sampling personnel will be available to collect samples in accordance with the sampling schedule. Supplies maintained at the facility will include, but are not limited to: clean powder-free nitrile gloves; sample collection equipment; coolers; appropriate number and volume of sample containers; identification labels;

re-sealable storage bags; paper towels; personal rain gear; ice; and *Sampling Field Log Sheets* and Chain of Custody (CoC) forms, which are provided in MIP Attachment 3 "Example Forms".

### 5.6.4 Analytical Constituents

Table 5.5 identifies the constituents identified for sampling and analysis.

Table 5.5 Analytical Constituents

| Constituent              | Reason                                  | Sample Location    |
|--------------------------|---|--------------------|
| pH                       | Basic required constituent              | All                |
| Oil and Grease           | Basic required constituent              | All                |
| Total Suspended Solids   | Basic required constituent              | All                |
| COD                      | Pollutant Source Assessment constituent | 6, 7, 8, 9, and 10 |
| Nitrate + Nitrite (as N) | Pollutant Source Assessment constituent | 6, 7, 8, 9, and 10 |
| Ammonia (as N)           | Pollutant Source Assessment constituent | 6, 7, 8, 9, and 10 |
| Phosphorus, Total        | Pollutant Source Assessment constituent | 6, 7, 8, 9, and 10 |
| Aluminum, Total          | Pollutant Source Assessment constituent | 6, 7, 8, 9, and 10 |
| Copper, Total            | Pollutant Source Assessment constituent | 6, 7, 8, 9, and 10 |
| Iron, Total              | Pollutant Source Assessment constituent | 6, 7, 8, 9, and 10 |
| Lead, Total              | Pollutant Source Assessment constituent | 6, 7, 8, 9, and 10 |
| Zinc, Total              | Pollutant Source Assessment constituent | 6, 7, 8, 9, and 10 |

### 5.6.5 Sample Collection

Samples of discharge will be collected at the designated sampling locations shown on the Site Maps in Appendix A. Samples from each discharge location will be collected within four (4) hours of:

- The start of the discharge (based on visual observation); or
- The start of facility operations if the QSE occurs within the previous 12 hour period.

Sample collection is required during scheduled facility operating hours and when sampling conditions are safe.

Grab samples will be collected and preserved in accordance with the methods identified in Table 5.6, "Sample Collection, Preservation and Analysis for Water Quality Samples" provided in Section 5.6.6. Only team members properly trained in water quality sampling will collect samples.

The facility is not subject to Subchapter N ELGs mandating pH analysis and has not entered Level 1 Status for pH. Grab samples will be collected and analyzed for pH using calibrated portable pH instruments. These instruments will be provided and maintained by the onsite laboratory at EEWTP. Instrument calibration requirements and manufacturer information are

provided in MIP Attachment 4 "Field Meter Instructions". The pH analysis will be performed as soon as practicable, but no later than 15 minutes after sample collection.

Samples from different discharge locations will not be combined or composited prior to shipment to the analytical laboratory. Sample collection, minimum volumes and handling requirements are described in Section 5.8.

### 5.6.6 Sample Analysis

Samples will be analyzed using the analytical methods identified in the Table 5.6. Samples will be analyzed by the onsite laboratory at EEWTP:

| Laboratory Name:              | Water Resources Laboratory – City of Santa Barbara Public Works Department |  |  |  |  |  |
|-------------------------------|--|--|--|--|--|--|
| Street Address:               | 520 E. Yanonali Street   |  |  |  |  |  |
| City, State Zip:              | Santa Barbara, CA 93101  |  |  |  |  |  |
| Telephone Number:             | (805) 568-1006   |  |  |  |  |  |
| Point of Contact:             | Gaylen Fair  |  |  |  |  |  |
| ELAP Certification<br>Number: | 1504   |  |  |  |  |  |
| Samples will be delivered     | to the laboratory by:  |  |  |  |  |  |
| Facility Personnel            | ⊠ Yes □ No   |  |  |  |  |  |
| Picked up by Laboratory       | Courier 🔀 Yes 🗌 No   |  |  |  |  |  |
| Shipped                       | ☐ Yes ☒ No   |  |  |  |  |  |

 Table 5.6
 Sample Collection, Preservation and Analysis for Water Quality Samples

| Constituent                                    | Analytical Method                       | Minimum<br>Sample<br>Volume | Sample<br>Containers <sup>1</sup> | Sample Preservation                             | Reporting Limit | Maximum<br>Holding<br>Time |
|--|---|-----------------------------|-----------------------------------|---|-----------------|----------------------------|
| $pH^2$   | pH meter                                | NA                          | NA                                | NA  | 0.1 pH units    | 15 minutes                 |
| Oil and Grease                                 | EPA 1664A                               | 1 L                         | Glass                             | HCl and Store at 4°C                            | 5 mg/L          | 28 Days                    |
| Total Suspended Solids                         | SM 2540-D                               | 250 mL                      | PE                                | Store at 4°C                                    | 1 mg/L          | 7 Days                     |
| COD  | HACH 8000 <sup>4</sup>                  | 500 mL                      | PE                                | H <sub>2</sub> SO <sub>4</sub> and Store at 4°C | 50 mg/L         | 28 Days                    |
| Nitrate + Nitrite Nitrogen (as N) <sup>3</sup> | HACH 10206 / HACH<br>10237 <sup>4</sup> | 250 mL                      | PE                                | H <sub>2</sub> SO <sub>4</sub> and Store at 4°C | 0.1 mg/L        | 28 Days                    |
| Ammonia (as N)                                 | HACH 10205                              | 250 mL                      | PE                                | H <sub>2</sub> SO <sub>4</sub> and Store at 4°C | 0.1 mg/L        | 28 Days                    |
| Total Phosphorus (as P)                        | SM 4500-P                               | 250 mL                      | PE                                | H <sub>2</sub> SO <sub>4</sub> and Store at 4°C | 0.1 mg/L        | 28 Days                    |
| Aluminum, Total                                | EPA 200.8                               |                             | PE                                | HNO <sub>3</sub> and Store at 4°C               | 25 μg/L         | 6 months                   |
| Copper, Total                                  | EPA 200.8                               |                             | PE                                | HNO <sub>3</sub> and Store at 4°C               | 1 μg/L          | 6 months                   |
| Iron, Total                                    | EPA 200.7                               | 500 mL                      | PE                                | HNO <sub>3</sub> and Store at 4°C               | 25 μg/L         | 6 months                   |
| Lead, Total                                    | EPA 200.8                               | ]                           | PE                                | HNO <sub>3</sub> and Store at 4°C               | 1 μg/L          | 6 months                   |
| Zinc, Total                                    | EPA 200.8                               |                             | PE                                | HNO <sub>3</sub> and Store at 4°C               | 5 μg/L          | 6 months                   |

### Notes:

- 1. PE = Polyethylene
- 2. Measured directly from flow stream
- 3. Nitrate-N and Nitrite-N are analyzed separately at the laboratory. The results will be added for reporting purposes in SMARTS.
- 4. Pending Waterboard approval

### 5.6.7 Data Evaluation and Reporting

The designated member of the Pollution Prevention Team will complete an evaluation of the water quality sample analytical results.

All sampling and analytical results for all individual samples will be submitted via SMARTS within 30 days of obtaining all results for each sampling event.

The method detection limit will be provided when an analytical result from samples taken is reported by the laboratory as a "non-detect" or less than the method detection limit. A value of zero will not be reported.

Analytical results that are reported by the laboratory as below the minimum level (often referred to as the reporting limit) but above the method detection limit will be provided.

Reported analytical results will be averaged automatically by SMARTS at the end of the reporting year. For any calculations required by the General Permit, a value of zero shall be used for all sampling analytical results that are reported by the laboratory as "non-detect" or less than the Method Detection Limit (MDL).

### 5.7 TRAINING OF SAMPLING PERSONNEL

Sampling personnel will be trained to collect, maintain, and ship samples in accordance with the General Permit and this SWPP. Training records of designated sampling personnel are provided in Appendix C.

The stormwater sampler(s) and alternate(s) will receive training by a qualified member of the pollution prevention team prior to sampling the first rain event.

#### 5.8 SAMPLE COLLECTION AND HANDLING

#### 5.8.1 Sample Collection

Samples will be collected at the designated sampling locations shown on the Site Maps and listed in the preceding sections. Samples will be collected, maintained and delivered in accordance with the requirements in the following sections.

Grab samples will be collected and preserved in accordance with the methods identified in preceding sections.

To maintain sample integrity and prevent cross-contamination, sample collection personnel will follow the protocols below.

- Collect samples (for laboratory analysis) only in analytical laboratory-provided sample containers;
- Wear clean, powder-free nitrile gloves when collecting samples;
- Change gloves whenever something not known to be clean has been touched;
- Change gloves between sites;
- Decontaminate all equipment (e.g. bucket, tubing) and rinse with deionized water.
   (Dispose of wash and rinse water appropriately, i.e., do not discharge to storm drain or receiving water). Do not decontaminate laboratory provided sample containers;

- Do not smoke during sampling events;
- Never sample near a running vehicle;
- Do not park vehicles in the immediate sample collection area (even non-running vehicles);
- Do not eat or drink during sample collection; and
- Do not breathe, sneeze, or cough in the direction of an open sample container.

The most important aspect of grab sampling is to collect a sample that represents the entire runoff stream. Typically, samples are collected by dipping the collection container in the runoff flow paths and streams as noted below:

- For small streams and flow paths, simply dip the bottle facing upstream until full;
- For larger stream that can be safely accessed, collect a sample in the middle of the flow stream by directly dipping the mouth of the bottle. Once again making sure that the opening of the bottle is facing upstream as to avoid any contamination by the sampler;
- For collecting samples from catch basins, pole-samplers may be needed to safely access the representative flow;
- For sampling gutter flows, a decontaminated dustpan or some other device may be used to collect samples;
- Avoid collecting samples from ponded, sluggish or stagnant water;
- Avoid collecting samples directly downstream from a bridge as the samples can be affected by the bridge structure or runoff from the road surface;
- Do not stand upstream of the sampling point within the flow path; and
- Collect Oil & Grease samples directly from the air-water interface.

Note, that depending upon the specific analytical test, some containers may contain preservatives. These containers should **never** be dipped into the stream, but filled indirectly from the collection container.

### 5.8.2 Sample Handling

Field pH measurements must be conducted immediately. Do not store pH samples for later measurement.

Samples for laboratory analysis must be handled as follows. Immediately following sample collection:

- Cap sample containers;
- Complete sample container labels;
- Place sealed containers in a re-sealable storage bag;
- Place sample containers into an ice-chilled cooler;
- Document sample information on the Sampling Field Log Sheet; and
- Complete the CoC.

All samples for laboratory analysis must be maintained between 0-6 degrees Celsius during delivery to the laboratory. Samples must be kept on ice, or refrigerated, from sample collection through delivery to the laboratory.

Deliver samples that will be laboratory analyzed to the analytical laboratory right away. Hold times are measured from the time the sample is collected to the time the sample is analyzed. The General Permit requires that samples be received by the analytical laboratory within 48 hours of the physical sampling (unless required sooner by the analytical laboratory).

### **5.8.3** Sample Documentation Procedures

All original data documented on sample bottle identification labels, *Sampling Log*, and CoCs will be recorded using waterproof ink. If an error is made on a document, sampling personnel will make corrections by lining through the error and entering the correct information. The erroneous information will not be obliterated. All corrections will be initialed and dated.

Duplicate samples will be identified consistent with the numbering system for other samples to prevent the laboratory from identifying duplicate samples. Duplicate samples will be identified in the Sampling Log.

Sample documentation procedures include the following:

<u>Sample Bottle Identification Labels:</u> Sampling personnel will attach an identification label to each sample bottle. Sample identification will uniquely identify each sample location.

<u>Field Log Sheets:</u> Sampling personnel will complete the *Sampling Field Log Sheet* for each sampling event, as appropriate.

<u>Chain of Custody:</u> Sampling personnel will complete the CoC for each sampling event for which samples are collected for laboratory analysis. The sampler will sign the CoC when the sample(s) is turned over to the testing laboratory or courier.

#### 5.9 QUALITY ASSURANCE AND QUALITY CONTROL

An effective Quality Assurance and Quality Control (QA/QC) plan will be implemented as part of the MIP to ensure that analytical data can be used with confidence. QA/QC procedures to be initiated include the following:

- Field logs;
- Clean sampling techniques;
- CoCs:
- QA/QC Samples; and
- Data verification.

Each of these procedures is discussed in more detail in the following sections.

### 5.9.1 Field Logs

The purpose of field logs is to record sampling information and field observations during monitoring that may explain any uncharacteristic analytical results. Sampling information to be included in the field log include the date and time of water quality sample collection, sampling personnel, sample container identification numbers, and types of samples that were collected.

Field observations should be noted in the field log for any abnormalities at the sampling location (color, odor, BMPs, etc.). Field measurements for pH and turbidity should also be recorded in the field log. A Visual Inspection Field Log and a Sampling Field Log Sheet are included in MIP Attachment 3 "Example Forms".

### 5.9.2 Clean Sampling Techniques

Clean sampling techniques involve the use of certified clean containers for sample collection and clean powder-free nitrile gloves during sample collection and handling. As discussed in Section 5.8, adoption of a clean sampling approach will minimize the chance of field contamination and questionable data results.

### 5.9.3 Chain of Custody

The sample CoC is an important documentation step that tracks samples from collection through analysis to ensure the validity of the sample. Sample CoC procedures include the following:

- Proper labeling of samples;
- Use of CoC forms for all samples; and
- Prompt sample delivery to the analytical laboratory.

Analytical laboratories usually provide CoC forms to be filled out for sample containers. An example CoC is included in MIP Attachment 3 "Example Forms".

### 5.9.4 QA/QC Samples

QA/QC samples provide an indication of the accuracy and precision of the sample collection; sample handling; field measurements; and analytical laboratory methods. The following types of QA/QC will be conducted for this project:

| Field Duplicates at a frequency of 5 percent (1 every 20 samples |
|--|
|--|

| $\boxtimes$ | Equipment Blanks | at a frequency | of 5 percent | (1 every 20 | samples); and |
|-------------|------------------|----------------|--------------|-------------|---------------|
|-------------|------------------|----------------|--------------|-------------|---------------|

| $\boxtimes$ | Field Blanks at a | frequency of | of 5 percent (1 | l every 20 sample | s) |
|-------------|-------------------|--------------|-----------------|-------------------|----|
|-------------|-------------------|--------------|-----------------|-------------------|----|

#### 5.9.4.1 Field Duplicates

Field duplicates provide verification of laboratory or field analysis and sample collection. Duplicate samples will be collected, handled, and analyzed using the same protocols as primary samples. The sample location where field duplicates are collected will be randomly selected from the discharge locations. Duplicate samples will be collected immediately after the primary sample has been collected. Duplicate samples must be collected in the same manner and as close in time as possible to the original sample. Duplicate samples will not influence any evaluations or conclusion.

### 5.9.4.2 Equipment Blanks

Equipment blanks provide verification that equipment has not introduced a pollutant into the sample. Equipment blanks are typically collected when:

- New equipment is used;
- Equipment that has been cleaned after use at a contaminated site;
- Equipment that is not dedicated for surface water sampling is used; or
- Whenever a new lot of filters is used when sampling metals.

#### 5.9.4.3 Field Blanks

Field blanks assess potential sample contamination levels that occur during field sampling activities. De-ionized water field blanks are taken to the field, transferred to the appropriate container, and treated the same as the corresponding sample type during the course of a sampling event.

#### 5.9.5 Data Verification

After results are received from the analytical laboratory, the discharger will verify the data to ensure that it is complete, accurate, and the appropriate QA/QC requirements were met. Data must be verified as soon as the data reports are received. Data verification will include:

- Check the CoC and laboratory reports.

  Make sure all requested analyses were performed and all samples are accounted for in the reports.
- Check laboratory reports to make sure hold times were met and that the reporting levels meet or are lower than the reporting levels agreed to in the contract.
- Check data for outlier values and follow up with the laboratory.

  Occasionally typographical errors, unit reporting errors, or incomplete results are reported and should be easily detected. These errors need to be identified, clarified, and corrected quickly by the laboratory. Especially note data that is an order of magnitude or more different than similar locations, or is inconsistent with previous data from the same location.
- Check laboratory QA/QC results. EPA establishes QA/QC checks and acceptable criteria for laboratory analyses. These data are typically reported along with the sample results. Evaluate the reported QA/QC data to check for contamination (method, field, and equipment blanks), precision (laboratory matrix spike duplicates), and accuracy (matrix spikes and laboratory control samples). When QA/QC checks are outside acceptable ranges, the laboratory must flag the data, and usually provides an explanation of the potential impact to the sample results.
- Check the data set for outlier values and accordingly, confirm results and re-analyze samples where appropriate.

  Sample re-analysis should only be undertaken when it appears that some part of the QA/QC resulted in a value out of the accepted range. Sample results may not be discounted unless the analytical laboratory identifies the required QA/QC criteria were not met and confirms this in writing.

Field data including pH measurements and visual observations must be verified as soon as the Visual Observation and Sampling Logs are received, typically at the end of the monitoring event. Field data verification will include:

- Check logs to make sure all required measurements were completed and appropriately documented;
- Check reported values that appear out of the typical range or inconsistent; Follow-up immediately to identify potential reporting or equipment problems, if appropriate, recalibrate equipment after sampling;
- Verify equipment calibrations;
- Review observations noted on the logs; and
- Review notations of any errors and actions taken to correct the equipment or recording errors.

#### 5.10 RECORDS RETENTION

Records of stormwater monitoring information and copies of reports (including Annual Reports) must be retained for a period of at least five (5) years from date of submittal or longer if required by the Regional Water Board.

Results of visual observations, field measurements, and laboratory analyses must be kept in the SWPPP along with CoCs, and other documentation related to the monitoring.

#### Records to be retained include:

- The date, place, and time of inspections, sampling, visual observations, and/or measurements, including precipitation;
- The individual(s) who performed the inspections, sampling, visual observation, and/or field measurements;
- The date and approximate time of field measurements and laboratory analyses;
- The individual(s) who performed the laboratory analyses;
- A summary of all analytical results, the method detection limits and reporting limits, and the analytical techniques or methods used;
- Weather reports;
- QA/QC records and results;
- Calibration records:
- Visual observation and sample collection exception records; and
- The records of any corrective actions and follow-up activities that resulted from analytical results, visual observations, or inspections.

| Visual Observation Log - Monthly                    |  |   |             |             |  |  |  |
|---|--|---|-------------|-------------|--|--|--|
| Date and Time of Inspection:                        |  | Report Date:                                  |             |             |  |  |  |
| Facility Name:                                      |  |   |             |             |  |  |  |
| We  | ather  |   |             |             |  |  |  |
| Antecedent Conditions (last 48 hours):              |  |   | Current V   | Veather:    |  |  |  |
| NSWD OI   | oservatio  | ns  |             |             |  |  |  |
| Were any authorized non-stormwater discharges       | sobserved  | d?  | Yes □       | No □        |  |  |  |
| Were any <u>unauthorized</u> non-stormwater dischar | rges obse  | rved?   | Yes □       | No □        |  |  |  |
| If yes to either, identify source:                  |  |   |             |             |  |  |  |
| Outdoor Industrial Equipment                        | and Stor   | age Area Obse                                 | rvations    |             |  |  |  |
| Complete Monthly BMP Inspection Report              | Yes □  | No □  |             |             |  |  |  |
| Drainage Area 1:                                    |  | y deficiencies o<br>f industrial pollu<br>o □ | •           | •           |  |  |  |
| Drainage Area 2:                                    | Were any deficiencies or any other potential source of industrial pollutants observed?  Yes □ No □ |   |             |             |  |  |  |
| Drainage Area 4:                                    | Were an  | y deficiencies or<br>f industrial pollu       | •           | •           |  |  |  |
| Drainage Area 6:                                    | Were an  | y deficiencies or<br>f industrial pollu       |             |             |  |  |  |
| Drainage Area 7:                                    | Were an  | y deficiencies or<br>f industrial pollu       | •           | •           |  |  |  |
| Drainage Area 9:                                    | Were an  | y deficiencies or<br>f industrial pollu       | -           | •           |  |  |  |
| Drainage Area 10:                                   | Were an  | y deficiencies or<br>f industrial pollu       |             |             |  |  |  |
| Drainage Area 11:                                   |  | y deficiencies o                              | r any othei | r potential |  |  |  |

|                    |                                 | source of industrial pollutants observed?  |  |  |  |  |  |  |
|--------------------|---------------------------------|--|--|--|--|--|--|--|
|                    |                                 | Yes □ No □   |  |  |  |  |  |  |
|                    |                                 | Were any deficiencies or any other potential   |  |  |  |  |  |  |
| D                  | rainage Area 12:                | source of industrial pollutants observed?  |  |  |  |  |  |  |
|                    |                                 | Yes □ No □   |  |  |  |  |  |  |
|                    |                                 | Were any deficiencies or any other potential   |  |  |  |  |  |  |
| D                  | rainage Area 13:                | source of industrial pollutants observed?  |  |  |  |  |  |  |
|                    |                                 | Yes □ No □   |  |  |  |  |  |  |
|                    |                                 | Were any deficiencies or any other potential   |  |  |  |  |  |  |
| D                  | rainage Area 14:                | source of industrial pollutants observed?  |  |  |  |  |  |  |
|                    |                                 | Yes □ No □   |  |  |  |  |  |  |
| _                  |                                 | Were any deficiencies or any other potential   |  |  |  |  |  |  |
| D                  | rainage Area 17:                | source of industrial pollutants observed?  |  |  |  |  |  |  |
|                    |                                 | Yes □ No □   |  |  |  |  |  |  |
| _                  |                                 | Were any deficiencies or any other potential source of industrial pollutants observed? |  |  |  |  |  |  |
| ט                  | rainage Area 19:                | Yes   No   |  |  |  |  |  |  |
| 16                 | 9                               | Yes ⊔ No ⊔   |  |  |  |  |  |  |
| If yes to any, des | scribe:                         |  |  |  |  |  |  |  |
|                    |                                 |  |  |  |  |  |  |  |
|                    |                                 |  |  |  |  |  |  |  |
| Exception Docui    | mentation (explanation required | if inspection could not be conducted).   |  |  |  |  |  |  |
|                    |                                 |  |  |  |  |  |  |  |
|                    |                                 |  |  |  |  |  |  |  |
|                    |                                 |  |  |  |  |  |  |  |
|                    |                                 |  |  |  |  |  |  |  |
|                    | inspector                       | r Information  |  |  |  |  |  |  |
|                    | tor Title:                      |  |  |  |  |  |  |  |
| Name:              |                                 |  |  |  |  |  |  |  |
| Signature:         |                                 | Date:  |  |  |  |  |  |  |
|                    |                                 |  |  |  |  |  |  |  |
|                    |                                 |  |  |  |  |  |  |  |

| Visual Ob                              | servation Lo  | g – QSE Sampling Ev      | ents/                   |                             |  |  |
|--|---------------|--------------------------|-------------------------|-----------------------------|--|--|
| Date and Time of Inspection:           | Report [      | Date:                    |                         |                             |  |  |
| Facility Name:                         |               |                          | •                       |                             |  |  |
|  | We            | eather                   |                         |                             |  |  |
| Antecedent Conditions (last 48 hou     | rs):          |                          | Weather:                |                             |  |  |
| Precipitation Total:                   |               |                          | Predicted %             | Predicted % chance of rain: |  |  |
| Estimate storm beginnin                | g:            | Estimate storm duration: | Estimate t since last s | Rain<br>gauge               |  |  |
| (date and time)                        |               | (hours)                  | (days or ho             | (days or hours)             |  |  |
|  | Sampling Eve  | ent Observations         |                         | (inches)                    |  |  |
| Observations: If yes identify location |               |                          | ntify probable          | cause                       |  |  |
| Odors Yes \( \text{No } \text{I} \)    |               | •                        |                         |                             |  |  |
| Floating material Yes   No             |               |                          |                         |                             |  |  |
| Suspended Material Yes □ No □          |               |                          |                         |                             |  |  |
| Sheen Yes □ No □                       |               |                          |                         |                             |  |  |
| Discolorations Yes □ No □              |               |                          |                         |                             |  |  |
| Turbidity Yes □ No □                   |               |                          |                         |                             |  |  |
|  | NSWD O        | bservations              |                         |                             |  |  |
| Were any authorized non-stormwat       | er discharges | observed?                | Yes □                   | No □                        |  |  |
| Were any <u>unauthorized</u> non-storm | Yes □         | No □                     |                         |                             |  |  |
| If yes to either, identify source      |               |                          |                         |                             |  |  |
|  | Drainage Are  | ea Observations          |                         |                             |  |  |
| Draina                                 | Deficie       | encies                   | Noted                   |                             |  |  |
|  |               |                          |                         |                             |  |  |
|  |               |                          |                         |                             |  |  |
|  |               |                          |                         |                             |  |  |
|  |               |                          |                         |                             |  |  |
|  |               |                          |                         |                             |  |  |
|  |               |                          |                         |                             |  |  |

| Exception Documentation (explanation required if inspection could not be conducted). |                  |  |  |  |  |  |  |
|--|------------------|--|--|--|--|--|--|
|  |                  |  |  |  |  |  |  |
|  |                  |  |  |  |  |  |  |
| Inspector Information  |                  |  |  |  |  |  |  |
| Inspector<br>Name:   | Inspector Title: |  |  |  |  |  |  |
| Signature:   | Date:            |  |  |  |  |  |  |

| Sampling Log   |  |            |                                       |             |  |  |  |  |
|--|--|------------|---------------------------------------|-------------|--|--|--|--|
| Facility Name:   |  |            | Date:                                 | Time Start: |  |  |  |  |
| Sampler Name:  |  |            |                                       |             |  |  |  |  |
|  | Field Me                                   | eter Calik | oration                               |             |  |  |  |  |
| pH Meter ID No./Description:                             |  |            |                                       |             |  |  |  |  |
| Calibration Date/Tim                                     | e:   |            |                                       |             |  |  |  |  |
|  | Field pH                                   | Measure    | ements                                |             |  |  |  |  |
| Discharge Loca   | ation Identifier                           |            | рН                                    | Time        |  |  |  |  |
| 1  |  |            | -                                     |             |  |  |  |  |
| 2  |  |            |                                       |             |  |  |  |  |
| 3  |  |            |                                       |             |  |  |  |  |
| 4  |  |            |                                       |             |  |  |  |  |
| 5  |  |            |                                       |             |  |  |  |  |
| 6  |  |            |                                       |             |  |  |  |  |
| 7  |  |            |                                       |             |  |  |  |  |
| 8  |  |            |                                       |             |  |  |  |  |
| 9  |  |            |                                       |             |  |  |  |  |
| 10   |  |            |                                       |             |  |  |  |  |
|  |  | les Colle  |                                       |             |  |  |  |  |
| Discharge Location Identifier                            |  | Constitue  | ent                                   | Time        |  |  |  |  |
| 1  | O&G, TSS                                   |            |                                       |             |  |  |  |  |
| 2  | O&G, TSS                                   |            |                                       |             |  |  |  |  |
| 3  | O&G, TSS                                   |            |                                       |             |  |  |  |  |
| 4  | O&G, TSS                                   |            |                                       |             |  |  |  |  |
| 5  | O&G, TSS                                   | NI (dans)  | Maria Francisco Pro-                  |             |  |  |  |  |
| 6  | O&G, TSS, TDS, COD                         |            |                                       |             |  |  |  |  |
| 7  | O&G, TSS, TDS, COD                         |            |                                       |             |  |  |  |  |
| 8 9  | O&G, TSS, TDS, COD,<br>O&G, TSS, TDS, COD, |            |                                       |             |  |  |  |  |
|  |  | •          | · · · · · · · · · · · · · · · · · · · |             |  |  |  |  |
| 10 O&G, TSS, TDS, COD, Nutrients, Metals, Fecal Coliform |  |            |                                       |             |  |  |  |  |
| Additional Sampling Notes:                               |  |            |                                       |             |  |  |  |  |
| Additional Campling Notes.                               |  |            |                                       |             |  |  |  |  |
|  |  |            |                                       |             |  |  |  |  |
|  |  |            |                                       |             |  |  |  |  |
|  |  |            |                                       |             |  |  |  |  |
| Time End:  |  |            |                                       |             |  |  |  |  |

| CHAIN-OF-CUSTODY     |               |        |        |                       | DATE:      |                 |       | Lab  |  |   |        |   |
|----------------------|---------------|--------|--------|-----------------------|------------|-----------------|-------|------|--|---|--------|---|
|                      |               |        |        | REQUESTED<br>ANALYSIS |            |                 |       |      |  |   |        |   |
| DESTINATION LAB:     |               |        |        |                       |            |                 | ANAL  | YSIS |  |   | Notes: |   |
|                      | ATTN:         |        |        |                       |            |                 |       |      |  |   |        |   |
| ADDRESS:             |               |        |        |                       |            |                 |       |      |  |   |        |   |
|                      |               |        |        |                       |            |                 |       |      |  |   |        |   |
| Office Phone:        |               |        |        |                       |            |                 |       |      |  |   |        |   |
| Cell Phone:          |               |        |        |                       |            |                 |       |      |  |   |        |   |
| SAMPLED BY:          |               |        |        |                       |            |                 |       |      |  |   |        |   |
| Contact:             |               | ·      |        |                       |            |                 |       |      |  |   |        |   |
|                      | F             |        |        |                       |            |                 |       |      |  |   |        |   |
|                      | Facility Name |        |        |                       |            |                 |       |      |  |   |        |   |
|                      |               | •      | •      |                       |            |                 |       |      |  |   |        |   |
| Oliant Canada ID     | Sample        | Sample | Sample |                       | Container  |                 |       |      |  |   |        |   |
| Client Sample ID     | Date          | Time   | Matrix | #                     | Туре       | Pres.           |       |      |  |   |        |   |
|                      |               |        |        |                       |            |                 |       |      |  |   |        |   |
|                      |               |        |        |                       |            |                 |       |      |  |   |        |   |
|                      |               |        |        |                       |            |                 |       |      |  |   |        |   |
|                      |               |        |        |                       |            |                 |       |      |  |   |        |   |
| SENDER COMMENTS:     |               |        |        |                       |            | RELINQUISHED BY |       |      |  |   |        |   |
|                      |               |        |        |                       |            |                 |       |      |  |   |        |   |
|                      |               |        |        |                       |            | Signature:      |       |      |  |   |        |   |
|                      |               |        |        |                       |            | Print:          |       |      |  |   |        |   |
|                      |               |        |        |                       |            | Company:        |       |      |  |   |        | Γ |
| D:                   |               |        |        |                       |            | Date:           | TIME: |      |  |   |        |   |
| LABORATORY COMMENTS: |               |        |        | RECEIVED BY           |            |                 |       |      |  |   |        |   |
|                      |               |        |        |                       | Signature: |                 |       |      |  |   |        |   |
|                      |               |        |        |                       | Print:     |                 |       |      |  |   |        |   |
|                      |               |        |        |                       |            | Company:        |       |      |  |   |        |   |
|                      |               |        |        |                       |            | Date:           |       |      |  |   | TIME:  |   |
|                      |               |        |        |                       |            |                 |       | _    |  | _ |        |   |

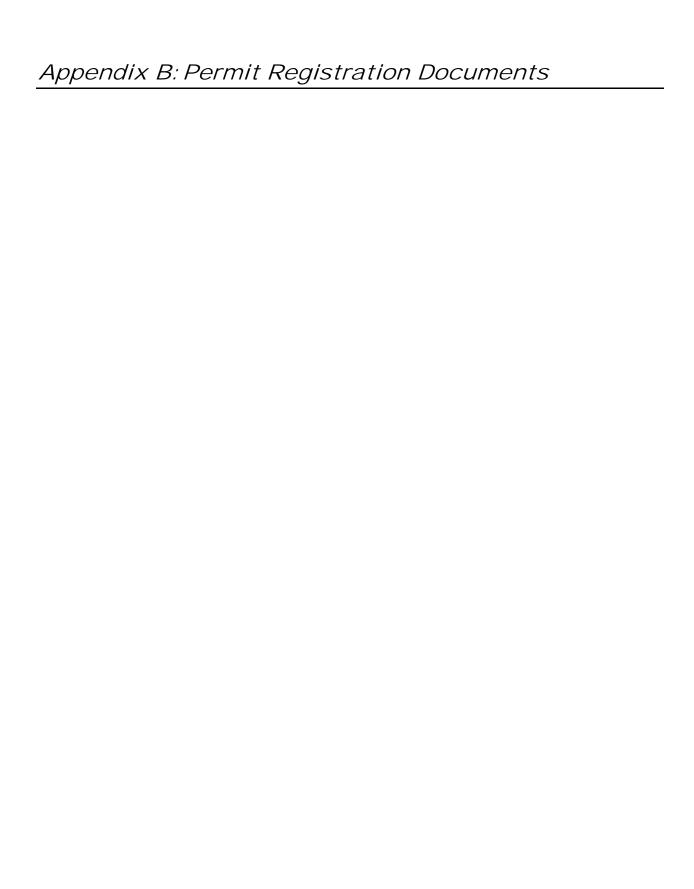
The following documents are incorporated by reference and will be filed along with this SWPPP and made available at the EEWTP at all times:

- Regional Water Board Basin Plan;
- City of Santa Barbara Stormwater Management Plan;
- City of Santa Barbara Stormwater BMP Guidance Manual; and
- Hazardous Materials Business Plan.

## Section 6 References

State Water Resources Control Board (2014). Order 2014-0057-DWQ, NPDES General Permit No. CAS000001: National Pollutant Discharges Elimination System (NPDES) California General Permit for Storm Water Discharge Associated with Industrial Activities. Available online at: <a href="http://www.waterboards.ca.gov/water\_issues/programs/stormwater/industrial.shtml">http://www.waterboards.ca.gov/water\_issues/programs/stormwater/industrial.shtml</a>.

CASQA 2012, Stormwater BMP Handbook Portal: Industrial Commercial, August 2014, <a href="https://www.casqa.org">www.casqa.org</a>



### Permit Registration Documents included in this Appendix

| Y/N | Permit Registration Document |
|-----|------------------------------|
|     | Notice of Intent             |
|     | Certification                |
|     | Copy of Annual Fee Receipt   |
|     | Site Maps, see Appendix A    |



# Trained Team Member Log Stormwater Management Training Log and Documentation

| Facility Name:WDID #:   |                     |  |  |  |
|---|---------------------|--|--|--|
| Stormwater Management Topic:  |                     |  |  |  |
| <ul> <li>☐ Good Housekeeping</li> <li>☐ Spill and Leak Prevention and Response</li> <li>☐ Erosion and Sediment Controls</li> <li>☐ Advanced BMPs</li> <li>☐ Stormwater Sampling and Analysis</li> </ul> |                     | <ul> <li>☐ Preventative Maintenance</li> <li>☐ Material Handling and Waste Managemen</li> <li>☐ Quality Assurance and Record Keeping</li> <li>☐ Visual Monitoring</li> </ul> |  |  |
| Specific Training Objective:  |                     |  |  |  |
| Location:   |                     | Date:  |  |  |
| Instructor:   |                     | Telephone:   |  |  |
| Course Length (hours):  |                     |  |  |  |
| Attendee Ros  | ster (Attach addi   | itional forms if necessary)  |  |  |
| Name  | Compa               | any Phone  |  |  |
| As needed, add proof of external QISP).   | training (e.g., cou | urse completion certificates, credentials for  |  |  |

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### **OPTIONAL**

## Appendix D: Responsible Parties

### **OPTIONAL**

| <b>Authorization</b> of | of Duly Authorized | Representatives |                |      |  |
|-------------------------|--------------------|-----------------|----------------|------|--|
| Facility Name: _        |                    |                 |                | _    |  |
| WDID #:                 |                    |                 |                |      |  |
| Name of<br>Personnel    | Project Role       | Company         | Signature      | Date |  |
|                         |                    |                 |                |      |  |
|                         |                    |                 |                |      |  |
|                         |                    |                 |                |      |  |
|                         |                    |                 |                |      |  |
|                         |                    |                 |                |      |  |
|                         |                    |                 |                |      |  |
|                         |                    |                 |                |      |  |
|                         |                    |                 |                |      |  |
| LRP's Signature         | ·                  | Da Da           | te             |      |  |
|                         |                    |                 |                |      |  |
|                         |                    |                 |                |      |  |
|                         |                    |                 |                |      |  |
|                         |                    |                 |                |      |  |
| LRP Name and            | Title              | Tel             | lephone Number |      |  |

### **OPTIONAL**

# Identification of QISP Facility Name: \_\_\_\_\_\_ WDID #: \_\_\_\_\_ The following are QISPs associated with this project Name of Personnel<sup>(1)</sup> Company Date

<sup>(1)</sup> If additional QISPs are required, add additional lines and include information here



| roject Number:  Legally Responsible Person  Stormwater Pollution Prever  his Stormwater Pollution Prevention Plan and attachn |                            |
|---|----------------------------|
| Legally Responsible Person Stormwater Pollution Prever This Stormwater Pollution Prevention Plan and attachn                  |                            |
| Stormwater Pollution Prevention Plan and attachn  |                            |
| Legally Responsible Person Stormwater Pollution Prever This Stormwater Pollution Prevention Plan and attachn                  |                            |
| Stormwater Pollution Prever<br>This Stormwater Pollution Prevention Plan and attachn  |                            |
| This Stormwater Pollution Prevention Plan and attachn   | ntion Plan Amendment       |
|   |                            |
| neet the requirements of the California Industrial Gener 014-0057-DWQ)."  | al Permit (SWRCB Order No. |
| LRP's Signature   | Date                       |
| LRP Name  | LRP Title                  |
| Title and Affiliation   | Telephone                  |
| Address   | Email                      |
|   |                            |

Appendix F: Calculations

### Appendix G: CASQA Stormwater BMP Handbook Portal: Industrial and Commercial Fact Sheets

Table H.1 BMP Implementation Log

| Industrial<br>Activity/Material and<br>Location | BMP Description | Implementation<br>Frequency | Implementation Description or Fact Sheet Reference | Person Responsible for Implementing BMP |
|---|-----------------|-----------------------------|--|---|
|   |                 |                             |  |   |
|   |                 |                             |  |   |
|   |                 |                             |  |   |
|   |                 |                             |  |   |
|   |                 |                             |  |   |
|   |                 |                             |  |   |
|   |                 |                             |  |   |
|   |                 |                             |  |   |

### MONTHLY BMP INSPECTION REPORT

| Date and Time of Inspection:   |       |     | Date Repor              | t Written:    |           |  |  |
|--|-------|-----|-------------------------|---------------|-----------|--|--|
| Part I. General Information  |       |     |                         |               |           |  |  |
| Site Information   |       |     |                         |               |           |  |  |
| Facility Name:   |       |     |                         |               |           |  |  |
| Facility Address:  |       |     |                         |               |           |  |  |
| Photos Taken:<br>(Circle one)  | Yes   |     | No                      | Photo Refere  | ence IDs: |  |  |
|  |       | Wea | ather                   |               |           |  |  |
| Estimate storm beginn (date and time)  | ning: |     | Estimate sto<br>(hours) | orm duration: |           |  |  |
| Estimate time since last runoff from any drainage area: (days or hours)  Rain gauge reading and location: (in)   |       |     |                         |               |           |  |  |
| Is a "Qualifying Storm Event" predicted or did one occur (i.e., discharge from site preceded by 48-hrs without discharge)? (Y/N) If yes, summarize forecast: |       |     |                         |               |           |  |  |
| Exception Documentation (explanation required if inspection could not be conducted).   |       |     |                         |               |           |  |  |
|  |       |     |                         |               |           |  |  |
|  |       |     |                         |               |           |  |  |
| Inspector Information  |       |     |                         |               |           |  |  |
| Inspector Name: Inspector Title:   |       |     |                         |               | tle:      |  |  |
| Signature:   |       |     |                         |               | Date:     |  |  |

| Part II. BMP Observations. Describe deficiencies in Part III. |   |                                |                                 |  |  |
|---|---|--------------------------------|---------------------------------|--|--|
| Advanced BMPs (List and Inspect all BMPs Implemented)         | Adequately<br>designed,<br>implemented and<br>effective<br>(yes, no, N/A) | Action<br>Required<br>(yes/no) | Action<br>Implemented<br>(Date) |  |  |
| Exposure Minimization BMPs                                    |   |                                |                                 |  |  |
|   |   |                                |                                 |  |  |
|   |   |                                |                                 |  |  |
|   |   |                                |                                 |  |  |
|   |   |                                |                                 |  |  |
|   |   |                                |                                 |  |  |
| Stormwater Containment and Discharge Reduction BMPs           |   |                                |                                 |  |  |
|   |   |                                |                                 |  |  |
|   |   |                                |                                 |  |  |
|   |   |                                |                                 |  |  |
|   |   |                                |                                 |  |  |
|   |   |                                |                                 |  |  |
| Treatment Control BMPs  |   |                                |                                 |  |  |
|   |   |                                |                                 |  |  |
|   |   |                                |                                 |  |  |
|   |   |                                |                                 |  |  |
|   |   |                                |                                 |  |  |
|   |   |                                |                                 |  |  |
| Other Advanced BMPs   |   |                                |                                 |  |  |
|   |   |                                |                                 |  |  |
|   |   |                                |                                 |  |  |
|   |   |                                |                                 |  |  |
|   |   |                                |                                 |  |  |
|   |   |                                |                                 |  |  |
|   |   |                                |                                 |  |  |

| Part III. Descriptions of BMP Deficiencies |  |                               |  |  |  |
|--|--|-------------------------------|--|--|--|
| Deficiency                                 | Repairs Implemented: Note - Repairs must be completed as soon as possible. |                               |  |  |  |
|  | Repaired<br>(Y/N)  | Corrective Action Implemented |  |  |  |
| 1.   |  |                               |  |  |  |
| 2.   |  |                               |  |  |  |
| 3.   |  |                               |  |  |  |
| 4.   |  |                               |  |  |  |

| Part IV. Additional Corrective Actions Required. Identify additional corrective actions not included with BMP Deficiencies (Part III) above. Identify BMPs that need more frequent inspection. Note if SWPPP change is required. |                     |  |  |  |
|--|---------------------|--|--|--|
| Required Actions   | Implementation Date |  |  |  |
|  |                     |  |  |  |
|  |                     |  |  |  |
|  |                     |  |  |  |
|  |                     |  |  |  |